

OUTSIDE PLANT WIRE & CABLE  
FOR TELECOMMUNICATIONS  
SEPTEMBER 2012

# Telecommunications Cables

This catalog contains in-depth information on the most comprehensive line of Telecommunications cables for the distribution of telecommunication signals for outside use.

The product and technical sections have been developed with an easy-to-use “spec-on-a-page” format. It features the latest information on Telecommunications cables, from applications and construction to detailed technical and specification data. There’s also a numerical part number index.

Our cables are readily available through our network of authorized stocking distributors and distribution centers.

We are dedicated to customer service and satisfaction—so call our team of professionally trained sales personnel to meet your application needs.



All information in this catalog is presented solely as a guide to product selection and is believed to be reliable. All printing errors are subject to correction in subsequent releases of this catalog. Although General Cable has taken precautions to ensure the accuracy of the product specifications at the time of publication, the specifications of all products contained herein are subject to change without notice.

GENERAL CABLE, BICC BRAND, CAROL BRAND, GENSPEED, NEXTGEN BRAND, PULL-PAC and TRU-MARK are trademarks of General Cable Technologies Corporation.

©2012. General Cable Technologies Corporation. Highland Heights, KY 41076  
All rights reserved. Printed in USA.

# Our Cables

## KEEP INFORMATION FLOWING QUALITY



General Cable is committed to meeting customer requirements through continuous quality improvements. As a significant part of our commitment to quality, General Cable’s manufacturing facilities are certified to the ISO 9001:2000 quality standard. Our telecommunications cable manufacturing facility has received TL 9000 quality standards registration as a supplement to the ISO program. This quality

system is based on the ISO 9001 program with added telecommunications-specific performance metrics. We strive to provide value optimization through innovation and quality solutions.

- Our in-house testing capabilities are extensive, with strict adherence to our product specifications as well as industry standards.
- Cables are safety listed and verified.
- Third-party testing labs like ETL are utilized to quantify and confirm our quality and provide final qualification data that sets the foundation for our extended product warranty.
- General Cable products have stood the test of time with proven reliability and performance.

## MANUFACTURING EXCELLENCE



All of General Cable’s Telecommunications wire and cable products are produced at facilities that have won the prestigious *INDUSTRYWEEK’s* Best Plants Award, given to the top 10 manufacturing plants in North America across all industries. This award annually honors a facility’s world-class manufacturing capabilities and its commitment to continuous improvement.

## CUSTOMER SERVICE



General Cable is dedicated to customer service and satisfaction. Call our team of professionally trained sales associates at

# 800-424-5666

with any questions to meet your application needs.

# Product Selection Locator

Section	Page
<b>1 Air Core Cables</b>	<b>1-8</b>
Air Core Cable . . . . .	PE-22 AL . . . . . Spec. 2003 . . . . . 2
Figure 8 Air Core Cable . . . . .	PE-38 AL . . . . . Spec. 2003-F8 . . . . . 3
Air Core ALPETH Cable . . . . .	Bell Type BH*A & BK*A . . . . . Spec. 2101 . . . . . 4
Figure 8 Air Core ALPETH Cable . . . . .	Bell Type BH*S & BK*S . . . . . Spec. 2102 . . . . . 5
Figure 8 Air Core ALPETH-GP Cable . . . . .	Bell Type BH*P & BK*P . . . . . Spec. 2108 . . . . . 6
Air Core Bonded PASP Cable . . . . .	Bell Type BH*H & BK*H . . . . . Spec. 2107 . . . . . 7
Air Core Foam Skin Bonded STALPETH Cable . . . . .	Bell Type DC*Z . . . . . Spec. 2106 . . . . . 8
<b>2 Filled Core Cables</b>	<b>9-17</b>
Filled Solid Cable . . . . .	RDUP (RUS) PE-39 AL . . . . . Spec. 2002 . . . . . 10
Filled Solid 5-Mil Copper Cable . . . . .	RDUP (RUS) PE-39 CU . . . . . Spec. 2002 . . . . . 11
Filled Solid Copper-Bearing Gopher-Resistant Cable . . . . .	RDUP (RUS) PE-39 GR . . . . . Spec. 2002 . . . . . 12
Filled Foam Skin Cable . . . . .	RDUP (RUS) PE-89 AL . . . . . Spec. 2007 . . . . . 13
Filled Foam Skin CACSP Cable . . . . .	RDUP (RUS) PE-89 CACSP . . . . . Spec. 2007 . . . . . 14
Filled Foam Skin ALPETH Cable . . . . .	Bell Type AN*A . . . . . Spec. 2111 . . . . . 15
Filled Foam Skin ASP Cable . . . . .	Bell Type AN*W . . . . . Spec. 2100 . . . . . 16
Filled Foam Skin "S" Screened ASP Cable . . . . .	Bell Type KN*W . . . . . Spec. 2109-F . . . . . 17
<b>3 Wire Products</b>	<b>18-26</b>
Glass Supported Drop Wire 2, 3 and 6 Pair . . . . .	Bell Type and RDUP (RUS) . . . . . Spec. 4292-4294 . . 19
Drop Wire . . . . .	Bell Type and RDUP (RUS) PE-7 . . . . . Spec. 4295 . . . . . 20
C Rural Wire . . . . .	Bell Type . . . . . Spec. 4283 . . . . . 20
Ground Wire . . . . .	Bell Type . . . . . Spec. 2621/2622 . . 21
Multiple Pair Aerial Service Wire . . . . .	Bell Type . . . . . Spec. 4298 . . . . . 22
Buried Service Wire - Gopher-Resistant . . . . .	RDUP (RUS) PE-86 . . . . . Spec. 4284 . . . . . 23
Buried Service Wire - Aluminum Shield . . . . .	ICEA S-86-634 . . . . . Spec. 4287 . . . . . 24
Buried Service Wire - Gopher-Resistant . . . . .	Bell Type . . . . . Spec. 3503 . . . . . 25
Buried Service Wire - Bronze or CCS Shield . . . . .	Bell Type . . . . . Spec. 3502 . . . . . 26
<b>4 Technical Information</b>	<b>27-36</b>
Local Distribution Network . . . . .	28-29
Color Code Chart . . . . .	30-31
Glossary . . . . .	32-34
Part Number Index . . . . .	35-36



**Our Green Initiative symbol recognizes our role and responsibility in promoting sustainability.**

**The symbol also reflects our commitment to achieving industry-leading standards and responding proactively to environmental global issues.**



**Look for our products with the RoHS symbol for your green building initiatives.**



**Visit [www.generalcable.com](http://www.generalcable.com)**  
Select "COMPANY," then select "Corporate Social Responsibility"





**Building Bridges** in the Sky



**Making Contact** with the World



**Directing Traffic** without Gridlock

General Cable is a leader in the development, design, manufacture, marketing and distribution of copper, aluminum and fiber optic wire and cable for the energy, industrial, specialty and communications markets.

Our products inspire progress worldwide ... customers use our value-added products to create global infrastructure that improves the standard of living for people everywhere.

Each day we're building business momentum — developing ideas into innovative solutions and industry-leading products, expanding geographic access and furthering our investment in highly capable associates, Lean Manufacturing, material science and technology resources.

General Cable is influencing the world ... with more than two-thirds of our sales generated outside North America and with more than 12,000 associates in 50 manufacturing facilities throughout 26 countries. As one of the largest wire and cable manufacturers, we are the *One Company Connecting the World*.

#### **Energy Cables**

Our cables carry energy across the world — through the air, underground and under the sea. Increasing demand for energy is accelerating investment in exploration, extraction, power generation, transmission and distribution — whether based on coal, natural gas, oil, nuclear, wind, solar or water.

#### **Industrial & Specialty Cables**

Our cables channel the power and signals that make equipment hum and engines run. From oil rigs and broadcast studios to cars and trains, and in commercial buildings, public venues, factory floors and special applications such as military, nuclear, marine and mining — we serve an extensive range of markets.

#### **Communications Cables**

Our cables keep information flowing — facilitating a non-stop stream of words and images around the world. We meet the high-speed bandwidth needs of global communications networks, from fiber optic submarine communications cables, copper and fiber aerial and underground cables to copper and fiber optic enterprise cables and system solutions.

#### **World Headquarters**

General Cable  
4 Tesseneer Drive  
Highland Heights, KY  
41076-9753 U.S.A.





**General Cable**  
**Telecommunications**

# Air Core Cables

Plastic insulated Air Core Cables provide a broad range of pair sizes for the distribution of telecommunication signals for outside use. These cables can be installed in underground ducts or strung between poles, lashed to a steel messenger or equipped with a built-in messenger wire.

An industry-standard color-coding system provides full identification of every pair through the use of 10 different insulating colors and non-hygroscopic unit binders.

Different optional sheath designs provide electrical shielding necessary for proper grounding and mechanical protection against rodents and other physical damage. A black, weather-resistant polyethylene jacket is used on all constructions for protection against long-term outdoor exposure.

The temperature range that Telecommunications cable can withstand is:

For storage and operation:  
-45°C to 80°C  
-49°F to 176°F

For installation:  
-30°C to 60°C  
-22°F to 140°F

All cables are equipped with surface-printed identification and sequential footage markings.

The cable design for 19, 22 and 24 AWG sizes has the transmission performance capability of 100Ω, Category 3 Backbone UTP Cables specified in TIA/EIA 568-C.

Our Telecommunications cable constructions contain no halogens (chlorine, fluorine, bromine or iodine), which means they are less toxic and more environmentally friendly. Look for the 17 FREE™ logo.

General Cable Air Core Cables are all proudly made in the U.S.A.

Index	Page
Air Core Cable PE-22 AL Spec. 2003	2
Figure 8 Air Core Cable PE-38 AL Spec. 2003-F8	3
Air Core ALPETH Cable Bell System Type BH*A & BK*A Spec. 2101	4
Figure 8 Air Core ALPETH Cable Bell System Type BH*S & BK*S Spec. 2102	5
Figure 8 Air Core ALPETH-GP Cable Bell System Type BH*P & BK*P Spec. 2108	6
Air Core Bonded PASP Cable Bell System Type BH*H & BK*H Spec. 2107	7
Air Core Foam Skin Bonded STALPETH Cable Bell System Type DC*Z Spec. 2106	8

# Air Core Cable

PE-22 AL

# Spec. 2003

**Core Construction:****Conductors:**

- Solid, annealed copper; sizes 19, 22 and 24 AWG

**Insulation:**

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**Sheath:****Aluminum Shield:**

- Corrugated, copolymer coated, 0.008" aluminum tape applied longitudinally with an overlap

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- For aerial installation by attachment to a support strand
- For underground installation when placed in a duct (pressurization is recommended)

**Compliances:**

- Formerly RDUP (RUS) Specification PE-22
- RoHS Compliant (effective 1/1/10)
- ANSI/ICEA S-85-625-2007

**Packaging:**

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request

**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7527757	6	19	0.49	102	5000
7527765	12	19	0.62	168	5000
7527781	25	19	0.79	310	5000
7527005	6	22	0.40	65	5000
7527013	12	22	0.49	102	5000
7527021	25	22	0.63	174	5000
7527039	50	22	0.90	308	5000
7527112	6	24	0.37	51	5000
7527120	12	24	0.43	74	5000
7527138	25	24	0.54	122	5000
7527146	50	24	0.67	209	5000
7527161	100	24	0.88	385	5000
7527187	200	24	1.18	720	2500
7527195	300	24	1.40	1060	2500
7527203	400	24	1.60	1375	2500

Data subject to change without notice. Contact your Customer Service Representative for latest information.



# Figure 8 Air Core Cable

PE-38 AL

## Spec. 2003-F8



### Nominal Cable Data

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2012020	6	19	0.96 x 0.49	229	5000
2012010	6	22	0.87 x 0.40	234	5000
2012011	12	22	0.96 x 0.49	259	5000
2012000	25	22	1.08 x 0.61	339	5000
2012001	50	22	1.28 x 0.81	466	5000
2012015	6	24	0.84 x 0.37	221	5000
2012016	12	24	0.90 x 0.43	242	5000
2012004	25	24	1.01 x 0.54	280	5000
2012005	50	24	1.14 x 0.67	376	5000
2012006	100	24	1.37 x 0.90	535	5000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

### Core Construction:

#### Conductors:

- Solid, annealed copper; sizes 19, 22 and 24 AWG

#### Insulation:

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

#### Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

#### Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

#### Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

### Figure 8 Sheath:

#### Aluminum Shield:

- Corrugated, copolymer coated, 0.008" aluminum tape applied longitudinally with an overlap

#### Support Messenger:

- A 1/4", 7 strand, extra high strength galvanized steel wire, fully flooded for corrosion protection

#### Jacket:

- Black, linear low density polyethylene is jacketed in an integral extrusion with the shielded core and support messenger to form a "Figure 8" configuration

### Application(s):

- Intended for aerial installation

### Compliances:

- Formerly RDUP (RUS) Specification PE-38
- RoHS Compliant (effective 1/1/10)
- ANSI/ICEA S-85-625-2007

### Packaging:

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request

# Air Core ALPETH Cable

## Spec. 2101

BELL SYSTEM TYPE BHBA (19 AWG) BKMA (24 AWG)  
 BHAA (22 AWG) BKTA (26 AWG)

**Core Construction:****Conductors:**

- Solid, annealed copper; sizes 19, 22, 24 and 26 AWG

**Insulation:**

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder
- 1200 pairs and larger are mirror image color code

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**ALPETH Sheath:****Aluminum Shield:**

- Corrugated 0.008" aluminum tape applied longitudinally with an overlap

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for aerial installation by attachment to a support strand

**Compliances:**

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available

**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7506975	50	19	1.10	582	3000
7506983	100	19	1.50	1080	3000
7506991	200	19	1.90	2087	1000
7510506	300	19	2.40	3099	1000
7506876	25	22	0.61	169	5000
7506884	50	22	0.79	305	3000
7506892	100	22	1.10	577	5000
6968770	200	22	1.50	1086	4000
7506900	300	22	1.70	1584	2500
6968762	400	22	1.90	2101	2500
6987275	600	22	2.30	3140	1000
6937817	900	22	2.80	4648	700
7506918	25	24	0.55	124	5000
7506926	50	24	0.65	208	10000
6937064	100	24	0.86	378	3000
6964803	200	24	1.10	716	6000
6964811	300	24	1.40	1034	5000
6964795	400	24	1.50	1350	4000
6964787	600	24	1.78	2037	1000
6983381	900	24	2.20	2982	1600
6937833	1200	24	2.50	3962	1000
7506777	1500	24	2.77	4894	800
6937841	1800	24	3.10	5889	800
7503485	400	26	1.30	886	2500
6987218	600	26	1.50	1317	3300
7508252	900	26	1.80	1934	2200
6937858	1200	26	2.05	2540	1000
6937866	1500	26	2.30	3155	1000
7506785	1800	26	2.50	3756	1000
6937767	2100	26	2.70	4382	1000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Figure 8 Air Core ALPETH Cable

## Spec. 2102

BELL SYSTEM TYPE BHBS (19 AWG) BKMS (24 AWG)  
BHAS (22 AWG) BKTS (26 AWG)



### Nominal Cable Data

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7516461	25	19	1.36 x 0.86	477	5000
7516479	50	19	1.61 x 1.11	746	2500
7516487	25	22	1.20 x 0.70	342	5000
7516495	50	22	1.35 x 0.85	480	5000
7517261	100	22	1.56 x 1.06	748	5000
7517279	25	24	1.12 x 0.62	287	10000
7517287	50	24	1.23 x 0.73	380	10000
7517303	100	24	1.42 x 0.92	556	5000
7517329	200	24	1.66 x 1.16	884	5000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

### Core Construction:

#### Conductors:

- Solid, annealed copper; sizes 19, 22, 24 and 26 AWG

#### Insulation:

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

#### Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

#### Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

#### Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

### Figure 8 Alpeth Sheath:

#### Aluminum Shield:

- Corrugated 0.008" aluminum tape applied longitudinally with an overlap

#### Support Messenger:

- A 1/4", 7 strand, extra high strength galvanized steel wire, fully flooded for corrosion protection

#### Jacket:

- Black, linear low density polyethylene is jacketed in an integral extrusion with the shielded core and support messenger to form a "Figure 8" configuration

### Application(s):

- Intended for aerial installation

### Compliances:

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

### Packaging:

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available



# Figure 8 Air Core ALPETH-GP Cable

# Spec. 2108

BELL SYSTEM TYPE BHPB (19 AWG) BKMP (24 AWG)  
 BHAP (22 AWG) BKTP (26 AWG)

**Core Construction:**

**Conductors:**

- Solid, annealed copper; sizes 19, 22, 24 and 26 AWG

**Insulation:**

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**Figure 8 ALPETH-GP Sheath:**

**Aluminum Shield:**

- Corrugated, 0.008" aluminum tape applied longitudinally with an overlap

**First Jacket:**

- Black, linear low density polyethylene jacket over the aluminum tape

**Steel Tape:**

- Corrugated, 0.006" steel tape flooded on both sides applied longitudinally over the first jacket with an overlap

**Support Messenger:**

- A 1/4", 7 strand, extra high strength galvanized steel wire, fully flooded for corrosion protection

**Outer Jacket:**

- Black, linear low density polyethylene is applied in an integral extrusion over the steel tape and support messenger to form a "Figure 8" configuration

**Application(s):**

- Intended for aerial installation where additional mechanical protection is required

**Compliances:**

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available



**Nominal Cable Data**

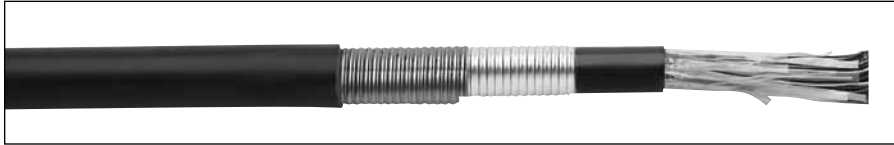
CATALOG NUMBER	PAIRS	AWG	O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7517394	25	19	1.63 x 1.13	675	5000
7517410	25	22	1.38 x 0.88	497	5000
7517428	50	22	1.56 x 1.06	664	5000
7517444	100	22	1.84 x 1.34	971	2500
7517451	25	24	1.33 x 0.83	433	5000
7517469	50	24	1.45 x 0.95	547	5000
7517485	100	24	1.63 x 1.13	758	5000
7517501	200	24	1.90 x 1.40	1129	2500

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Air Core Bonded PASP Cable

## Spec. 2107

BELL SYSTEM TYPE BHBH (19 AWG) BKMH (24 AWG)  
BHAH (22 AWG) BKTH (26 AWG)



### Nominal Cable Data

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7502180	25	19	0.98	440	5000
7502198	50	19	1.21	750	3000
7502214	100	19	1.62	1365	3000
7502230	200	19	2.10	2475	1000
7502248	300	19	2.59	3530	1000
7503543	25	22	0.76	280	5000
7503550	50	22	0.96	445	3000
7503576	100	22	1.20	750	3000
7503592	200	22	1.60	1360	4000
7503600	300	22	1.80	1893	1000
7503618	400	22	2.10	2490	2000
7503626	600	22	2.50	3582	1500
7503634	900	22	3.00	5265	700
7503659	25	24	0.68	220	10000
7503667	50	24	0.81	325	10000
7503683	100	24	1.00	530	10000
7503709	200	24	1.30	900	5000
7503717	300	24	1.50	1270	2500
7503725	400	24	1.68	1635	2500
7502073	600	24	2.00	2339	2000
7502040	900	24	2.40	3424	1600
7502081	1200	24	2.70	4418	900
7502065	1500	24	3.02	5422	900
7502057	1800	24	3.30	6580	800
7503816	400	26	1.40	1110	2500
7502024	600	26	1.70	1554	3300
7502032	900	26	2.05	2237	2200
7502099	1200	26	2.30	2923	1000
7503824	1500	26	2.51	3556	1000
7503832	1800	26	2.68	4205	1000
7503840	2100	26	2.83	4827	900

Data subject to change without notice. Contact your Customer Service Representative for latest information.

### Core Construction:

#### Conductors:

- Solid, annealed copper; sizes 19, 22, 24 and 26 AWG

#### Insulation:

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

#### Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

#### Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder
- 1200 pairs and larger are mirror image color code

#### Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

### Bonded PASP Sheath:

#### Inner Jacket:

- Black, linear low density polyethylene jacket over the core wrap

#### Aluminum Shield:

- Corrugated, 0.008" aluminum tape applied longitudinally

#### Steel Shield:

- Corrugated, copolymer coated, 0.006" steel tape applied longitudinally over the aluminum tape with an overlap

#### Outer Jacket:

- Black, linear low density polyethylene jacket bonded to the coated steel

### Application(s):

- Intended for pressurized direct buried installation in situations in which resistance to lightning and mechanical damage is required

### Compliances:

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

### Packaging:

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available



# Air Core Foam Skin Bonded STALPETH Cable

## Spec. 2106

BELL SYSTEM TYPE DCAZ (22 AWG) DCTZ (26 AWG)  
DCMZ (24 AWG)

**Core Construction:****Conductors:**

- Solid, annealed copper; sizes 22, 24 and 26 AWG

**Insulation:**

- Dual insulation consisting of an inner layer of foamed polyolefin surrounded by a solid polyolefin skin, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 3600 pairs and less: made up of 100 pair super-units consisting of four (4) 25 pair sub-units
- 4200 pair design: made up of 300 pair super-units consisting of twelve (12) 25 pair sub-units
- Each group is individually identifiable by color-coded unit binders
- All sizes are mirror image color code

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**Bonded STALPETH Sheath:****Aluminum Shield:**

- Corrugated, 0.008" aluminum tape applied longitudinally

**Steel Shield:**

- Corrugated, copolymer coated, 0.006" steel tape applied longitudinally over the aluminum tape with an overlap

**Outer Jacket:**

- Black, linear low density polyethylene jacket bonded to the coated steel

**Application(s):**

- Intended for pressurized urban underground duct installation
- Designed for large pair-count subscriber-serving cables leaving Central Offices where duct congestion is a prime concern

**Compliances:**

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available

**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2010083	900	22	2.50	4505	1000
2010084	1200	22	2.95	5948	1000
2010078	600	24	1.70	2022	1000
2010079	900	24	2.10	2960	1000
7516438	1200	24	2.35	3881	1000
7510712	1500	24	2.60	4795	1000
7502008	1800	24	2.80	5698	1000
7502107	2100	24	2.98	6583	1000
7510720	2400	24	3.21	7502	1000
2010080	600	26	1.44	1342	1000
7512510	900	26	1.70	1937	1000
6987374	1200	26	1.90	2524	1000
7513351	1500	26	2.10	3116	2000
6987382	1800	26	2.30	3687	1000
7513252	2100	26	2.44	4263	1000
6987390	2400	26	2.63	4832	1000
2010081	2700	26	2.70	5409	1000
6987408	3000	26	2.85	5978	1000
6987416	3600	26	3.15	7116	1000
6987424	4200	26	3.30	8246	1000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Filled Core Cables

Plastic insulated Filled Core Cables provide a broad range of pair sizes for the distribution of telecommunication signals for outside use. These cables can be installed in underground ducts and direct buried applications where protection against water and moisture entry is required and may also be installed aerially.

An industry standard color-coding system provides full identification of every pair through the use of 10 different insulating colors and non-hygroscopic unit binders. Designs are available using either a solid, polyolefin insulation or foamed polyolefin with a solid polyolefin skin. The solid insulation provides a more robust Core Construction, whereas the foam skin insulation offers space saving advantages.

A variety of sheath designs are available that provide electrical shielding necessary for proper grounding and mechanical protection against rodents and other physical damage. A black, weather-resistant polyethylene jacket is used on all constructions for protection against long-term outdoor exposure.

The temperature range that Telecommunications cable can withstand is:

For storage and operation:  
-45°C to 80°C  
-49°F to 176°F

For installation:  
-30°C to 60°C  
-22°F to 140°F

All cables are equipped with surface-printed identification and sequential footage markings.

The cable design for 19, 22 and 24 AWG sizes has the transmission performance capability of 100Ω, Category 3 Backbone UTP Cables specified in TIA/EIA 568-C.

Our Telecommunications cable constructions contain no halogens (chlorine, fluorine, bromine or iodine), which means they are less toxic and more environmentally friendly. Look for the 17 FREE™ logo.

General Cable Filled Core Cables are all proudly made in the U.S.A.

Index	Page
Filled Solid Cable RDUP (RUS) PE-39 AL Spec. 2002	10
Filled Solid 5-Mil Copper Cable RDUP (RUS) PE-39 CU Spec. 2002	11
Filled Solid Copper-Bearing Gopher-Resistant Cable RDUP (RUS) PE-39 GR Spec. 2002	12
Filled Foam Skin Cable RDUP (RUS) PE-89 AL Spec. 2007	13
Filled Foam Skin CACSP Cable RDUP (RUS) PE-89 CACSP Spec. 2007	14
Filled Foam Skin ALPETH Cable Bell System Type AN*A Spec. 2111	15
Filled Foam Skin ASP Cable Bell System Type AN*W Spec. 2100	16
Filled Foam Skin "S" Screened ASP Cable Bell System Type KN*W Spec. 2109-F	17

# Filled Solid Cable

# Spec. 2002

RDUP (RUS) PE-39 AL

**Core Construction:**

**Conductors:**

- Solid, annealed copper; sizes 19, 22 and 24 AWG

**Insulation:**

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

**Filling Compound:**

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**Sheath:**

**Aluminum Shield:**

- Corrugated, copolymer coated, 0.008" aluminum tape applied longitudinally with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for duct and direct buried installations where protection against water and moisture entry is required and may also be installed aerially

**Compliances:**

- Rural Development Utility Program (RDUP) 7 CFR 1755.390 (RUS PE-39)
- RoHS Compliant (effective 1/1/10)
- ANSI/ICEA S-84-608-2007

**Packaging:**

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request



**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7524507	6	19	0.60	140	5000
7524515	12	19	0.75	250	5000
7524523	25	19	0.97	450	5000
7524556	6	22	0.49	90	5000
7524564	12	22	0.57	137	5000
7524572	25	22	0.70	245	5000
7524580	50	22	0.95	425	5000
7524598	100	22	1.20	765	2500
7524614	6	24	0.46	68	5000
7524622	12	24	0.51	105	5000
7524648	25	24	0.60	170	5000
7524655	50	24	0.78	285	5000
7524671	100	24	1.00	525	5000
7524697	200	24	1.30	960	2500
7524705	300	24	1.60	1380	2500
7524713	400	24	1.82	1810	2500
7524721	600	24	2.20	2750	1250

Data subject to change without notice. Contact your Customer Service Representative for latest information.



# Filled Solid 5-Mil Copper Cable

RDUP (RUS) PE-39 CU

## Spec. 2002



### Nominal Cable Data

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7525058	6	22	0.46	100	5000
7525066	12	22	0.57	150	5000
7525074	25	22	0.71	265	5000
7525082	50	22	0.93	450	5000
7525090	100	22	1.20	805	2500
7525116	6	24	0.43	78	5000
7525124	12	24	0.50	115	5000
7525140	25	24	0.60	185	5000
7525157	50	24	0.77	305	5000
7525173	100	24	1.00	555	5000
7525199	200	24	1.35	995	2500
7525207	300	24	1.60	1425	2500
7525215	400	24	1.82	1870	2500
7525223	600	24	2.20	2810	1250

Data subject to change without notice. Contact your Customer Service Representative for latest information.

### Core Construction:

#### Conductors:

- Solid, annealed copper; sizes 19, 22 and 24 AWG

#### Insulation:

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

#### Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

#### Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

#### Filling Compound:

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

#### Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

#### Sheath:

#### Copper Shield:

- Corrugated 0.005" copper tape applied longitudinally with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

#### Jacket:

- Black, linear low density polyethylene

#### Application(s):

- Intended for duct and direct buried installations where protection against water and moisture entry is required and may also be installed aerially

#### Compliances:

- Rural Development Utility Program (RDUP) 7 CFR 1755.390 (RUS PE-39)
- RoHS Compliant (effective 1/1/10)
- ANSI/ICEA S-84-608-2007

#### Packaging:

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request



# Filled Solid Copper-Bearing Gopher-Resistant Cable Spec. 2002

RDUP (RUS) PE-39 GR

**Core Construction:**

**Conductors:**

- Solid, annealed copper; sizes 19, 22 and 24 AWG

**Insulation:**

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

**Filling Compound:**

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**Sheath:**

**Copper-Bearing Shield:**

- Corrugated, copper-bearing gopher-resistant tape applied longitudinally with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for duct and direct buried installations where protection against water and moisture entry is required and may also be installed aerially
- The copper-bearing tape provides increased mechanical protection and gopher resistance

**Compliances:**

- Rural Development Utility Program (RDUP) 7 CFR 1755.390 (RUS PE-39)
- RoHS Compliant (effective 1/1/10)
- ANSI/ICEA S-84-608-2007

**Packaging:**

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request



**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7528755	6	19	0.58	155	5000
7528763	12	19	0.75	265	5000
7528789	25	19	0.97	475	5000
7528003	6	22	0.48	101	5000
7528011	12	22	0.55	150	5000
7528037	25	22	0.70	260	5000
7528045	50	22	0.93	445	5000
7528060	100	22	1.20	795	2500
7528102	6	24	0.43	77	5000
7528110	12	24	0.50	115	5000
7528136	25	24	0.60	180	5000
7528144	50	24	0.78	300	5000
7528169	100	24	1.00	550	5000
7528185	200	24	1.36	985	2500
7528193	300	24	1.60	1410	2500
7528201	400	24	1.80	1855	2500
7528219	600	24	2.20	2805	1250

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Filled Foam Skin Cable

RDUP (RUS) PE-89 AL

## Spec. 2007



### Nominal Cable Data

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7525504	6	19	0.57	127	5000
7525512	12	19	0.65	210	5000
7525538	25	19	0.85	395	5000
7525595	6	22	0.48	85	5000
7525603	12	22	0.52	125	5000
7525629	25	22	0.62	205	5000
7525637	50	22	0.78	365	5000
7525652	100	22	1.01	665	2500
7525678	200	22	1.36	1255	2500
7525751	6	24	0.39	63	5000
7525769	12	24	0.48	87	5000
7525785	25	24	0.54	142	5000
7525793	50	24	0.64	240	5000
7525819	100	24	0.84	435	5000
7525835	200	24	1.18	795	2500
7525843	300	24	1.37	1145	2500
7525850	400	24	1.48	1510	2500
7525868	600	24	1.82	2260	1250
7525876	900	24	2.22	3390	1250
7526973	1200	24	2.54	4430	1000
7526981	1500	24	2.80	5500	1000
7526999	1800	24	3.03	6660	1000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

### Core Construction:

#### Conductors:

- Solid, annealed copper; sizes 19, 22 and 24 AWG

#### Insulation:

- Dual insulation consisting of an inner layer of foamed polyolefin surrounded by a solid polyolefin skin, color-coded in accordance with telephone industry standards

#### Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

#### Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

#### Filling Compound:

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

#### Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

#### Sheath:

##### Aluminum Shield:

- Corrugated, copolymer-coated, 0.008" aluminum tape applied longitudinally with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

##### Jacket:

- Black, linear low density polyethylene

#### Application(s):

- Intended for duct and direct buried installations where protection against water and moisture entry is required and may also be installed aerially

#### Compliances:

- Rural Development Utility Program (RDUP) 7 CFR 1755.890 (RUS PE-89)
- RoHS Compliant (effective 1/1/10)
- ANSI/ICEA S-84-608-2007

#### Packaging:

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request



# Filled Foam Skin CACSP Cable

## Spec. 2007

RDUP (RUS) PE-89 CACSP

**Core Construction:**

**Conductors:**

- Solid, annealed copper; sizes 22 and 24 AWG

**Insulation:**

- Dual insulation consisting of an inner layer of foamed polyolefin surrounded by a solid polyolefin skin, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

**Filling Compound:**

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**CACSP Sheath:**

**Aluminum Shield:**

- Corrugated, copolymer-coated, 0.008" aluminum tape applied longitudinally over the core wrap

**Steel Shield:**

- Corrugated, copolymer-coated, 0.006" steel tape applied longitudinally over the aluminum tape with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for duct and direct buried installations where protection against water and moisture entry is required and may also be installed aerially
- The addition of the steel tape armor provides increased mechanical protection and gopher resistance

**Compliances:**

- Rural Development Utility Program (RDUP) 7 CFR 1755.890 (RUS PE-89)
- RoHS Compliant (effective 1/1/10)
- ANSI/ICEA S-84-608-2007

**Packaging:**

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request



**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7526551	6	22	0.46	116	5000
7526569	12	22	0.55	170	5000
7526577	25	22	0.66	257	5000
7526585	50	22	0.85	440	5000
7526601	100	22	1.10	765	2500
7071608	6	24	0.41	90	5000
7526668	12	24	0.46	120	5000
7526684	25	24	0.57	183	5000
7526692	50	24	0.68	300	5000
7526718	100	24	0.88	510	5000
7526734	200	24	1.15	900	2500
7526742	300	24	1.45	1265	2500
7526759	400	24	1.55	1655	2500
7526767	600	24	1.82	2435	1250
7526775	900	24	2.20	3585	1250
7071616	1200	24	2.52	4635	1000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Filled Foam Skin ALPETH Cable

## Spec. 2111

BELL SYSTEM TYPE ANBA (19 AWG) ANMA (24 AWG)  
ANAA (22 AWG) ANTA (26 AWG)



### Nominal Cable Data

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2036300	25	19	0.83	392	5000
2036301	50	19	0.98	717	2500
2036302	100	19	1.50	1316	2500
2036303	200	19	2.00	2565	1250
2036307	25	22	0.61	208	5000
2036308	50	22	0.77	367	5000
2036309	100	22	1.02	683	2500
2036310	200	22	1.37	1286	2500
2036311	300	22	1.66	1867	1250
2036312	400	22	1.95	2503	1250
2036313	600	22	2.40	3747	1250
2036314	900	22	3.00	5653	1000
2036320	25	24	0.53	147	5000
2036321	50	24	0.64	245	5000
2036322	100	24	0.83	438	5000
2036323	200	24	1.10	815	2500
2036324	300	24	1.31	1165	2500
2036325	400	24	1.50	1532	2500
2036326	600	24	1.81	2304	1250
2036327	900	24	2.21	3436	1250
2036328	1200	24	2.50	4531	1000
2036329	1500	24	2.84	5617	1000
2036330	1800	24	3.09	6525	1000
2036331	2100	24	3.35	7897	750
2036334	25	26	0.45	104	5000
2036335	50	26	0.59	179	5000
2036336	100	26	0.75	314	5000
2036337	200	26	0.98	570	5000
2036338	300	26	1.20	833	2500
2036339	400	26	1.29	1062	2500
2036340	600	26	1.60	1534	1250
2036341	900	26	1.90	2248	1250
2036342	1200	26	2.14	2986	1250
2036343	1500	26	2.37	3677	1250
2036344	1800	26	2.57	4369	1000
2036345	2100	26	2.90	5181	1000
2036346	2400	26	3.00	5876	1000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

### Core Construction:

#### Conductors:

- Solid, annealed copper; sizes 19, 22, 24 and 26 AWG

#### Insulation:

- Dual insulation consisting of an inner layer of foamed polyolefin surrounded by a solid polyolefin skin, color-coded in accordance with telephone industry standards

#### Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

#### Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder
- 1200 pairs and larger are mirror image color code

#### Filling Compound:

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

#### Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

#### Sheath:

##### Aluminum Shield:

- Corrugated, 0.008" aluminum tape applied longitudinally with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

##### Jacket:

- Black, linear low density polyethylene

#### Application(s):

- Intended for duct and direct buried installations where protection against water and moisture entry is required and may also be installed aerially

#### Compliances:

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

#### Packaging:

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available



# Filled Foam Skin ASP Cable

# Spec. 2100

BELL SYSTEM TYPE ANBW (19 AWG) ANMW (24 AWG)  
ANAW (22 AWG) ANTW (26 AWG)

**Core Construction:**

**Conductors:**

- Solid, annealed copper; sizes 19, 22, 24 and 26 AWG

**Insulation:**

- Dual insulation consisting of an inner layer of foamed polyolefin surrounded by a solid polyolefin skin, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder
- 1200 pairs and larger are mirror image color code

**Filling Compound:**

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**ASP Sheath:**

**Aluminum Shield:**

- Corrugated, 0.008" aluminum tape applied longitudinally over the core wrap

**Steel Shield:**

- Corrugated, 0.006" steel tape applied longitudinally over the aluminum tape with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

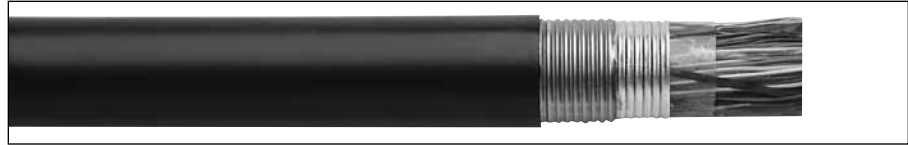
- Intended for duct and direct buried installations where protection against water and moisture entry is required and may also be installed aerially

**Compliances:**

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available



**Nominal Cable Data**

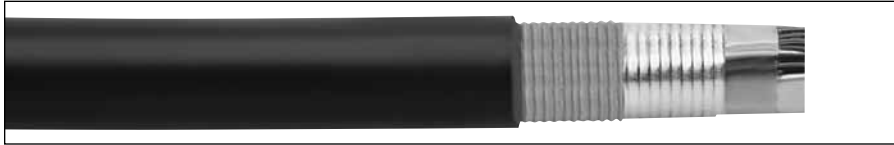
CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
6987481	25	19	0.87	454	5000
6987499	50	19	1.15	788	2500
6987507	100	19	1.45	1410	2500
6987515	200	19	2.03	2710	1250
6987523	300	19	2.45	3980	1250
6987572	25	22	0.65	254	5000
6987580	50	22	0.82	431	5000
6987606	100	22	1.06	757	2500
6987622	200	22	1.45	1377	2500
6987630	300	22	1.75	1997	1250
6987648	400	22	1.96	2638	1250
6987655	600	22	2.38	3917	1250
6987663	900	22	2.87	5773	1000
6987671	1200	22	3.32	7549	750
6987705	25	24	0.55	173	5000
6987713	50	24	0.70	295	5000
6987721	100	24	0.90	509	5000
6987739	200	24	1.14	898	2500
6987747	300	24	1.34	1263	2500
6987754	400	24	1.54	1651	2500
6987762	600	24	1.83	2430	1250
6987770	900	24	2.25	3601	1250
6987788	1200	24	2.55	4687	1000
6987796	1500	24	2.82	5792	1000
6987804	1800	24	3.09	6414	1000
6987812	25	26	0.50	139	5000
6987820	50	26	0.61	221	5000
6987838	100	26	0.80	371	5000
6987846	200	26	1.00	646	5000
6987853	300	26	1.19	915	5000
6987861	400	26	1.30	1169	2500
6987879	600	26	1.55	1654	3300
6987887	900	26	1.87	2376	2500
6987895	1200	26	2.15	3124	2000
7507007	1500	26	2.45	3836	1600
7507015	1800	26	2.50	4542	1400
7502958	2100	26	2.74	5350	1000
7507023	2400	26	2.95	6042	1000
7512650	2700	26	3.10	6792	1000
7512668	3000	26	3.32	7415	750

Data subject to change without notice. Contact your Customer Service Representative for latest information. This design is for duct installation only.



**Filled Foam Skin "S" Screened ASP Cable****Spec. 2109-F**

BELL SYSTEM TYPE KNAW (22 AWG)  
KNMW (24 AWG)

**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7528250	28	22	0.80	321	9000
7528268	54	22	0.95	511	9000
7528276	106	22	1.20	861	6000
7528284	158	22	1.40	1209	4500
7528292	210	22	1.60	1550	3000
7528300	314	22	1.92	2220	3000
7528318	418	22	2.20	3167	2000
7528326	616	22	2.50	4140	1500
2039061	28	24	0.62	222	9000
2039062	54	24	0.75	344	9000
2039063	106	24	1.00	547	6000
2039064	210	24	1.30	1002	4500

Data subject to change without notice. Contact your Customer Service Representative for latest information.

**Core Construction:****Conductors:**

- Solid, annealed copper; size 22 and 24 AWG

**Insulation:**

- Dual insulation consisting of an inner layer of foamed polyolefin surrounded by a solid polyolefin skin, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- Twisted pairs are assembled into 12, 13 and 25 pair units, or into 50 pair multi-units
- Service pair units of 4 to 18 pairs are assembled for inclusion into the cable

**"S" Screen:**

- Each half of the cable core is separated from the other by use of a 0.004" plastic-coated aluminum screen which divides the core into two electrically isolated compartments

**Filling Compound:**

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**ASP Sheath:****Aluminum Shield:**

- Corrugated, 0.008" aluminum tape applied longitudinally over the core wrap

**Steel Shield:**

- Corrugated, 0.006" steel tape applied longitudinally over the aluminum tape with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for direct buried installation
- Designed for digital two-way T-Carrier signal operation under one cable sheath

**Compliances:**

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available

# Wire Products

3

Wire products are small size distribution wires used as the last link in bringing telecommunication services to the subscriber. These services can incorporate voice, data and video channels.

Wire products are used in constructions from one pair to six pairs. They are made for either self-supported aerial or for buried service applications.

Aerial Services Wires are supported by either an integral steel wire, glass fibers imbedded in the jacket, or by the use of high tensile copper-clad steel conductors.

Buried Service Products are water-resistant and can be made with different shielding materials for mechanical protection during installation and against damage by rodents. All Buried Service Wire is equipped with sequential footage markings.

The temperature range that Telecommunications cable can withstand is:

For storage and operation:  
-45°C to 80°C  
-49°F to 176°F

For installation:  
-30°C to 60°C  
-22°F to 140°F

Multi-pair Aerial and Filled Service Wires have the transmission performance capability of 100Ω, Category 3 Horizontal UTP Cables specified in TIA/EIA-568-C.

Most of our Telecommunications wire constructions contain no halogens (chlorine, fluorine, bromine or iodine), which means they are less toxic and more environmentally friendly. Look for the 17 FREE™ logo.

Index	Page
Glass Supported Drop Wire 2, 3 and 6 Pair Bell System Type and RDUP (RUS) Spec. 4292-4294	19
Drop Wire Bell System Type F Drop and RDUP (RUS) PE-7 Spec. 4295	20
C Rural Wire Bell System Type Spec. 4283	20
Ground Wire Bell System Type Spec. 2621/2622	21
Multiple Pair Aerial Service Wire Bell System Type Spec. 4298	22
Buried Service Wire Gopher-Resistant RDUP (RUS) PE-86 ICEA S-86-634 Spec. 4284	23
Buried Service Wire Aluminum Shield ICEA S-86-634 Spec. 4287	24
Buried Service and Distribution Wire Gopher-Resistant Bell System Type Spec. 3503	25
Buried Service Wire Bronze or CCS Shield Bell System Type C Service Spec. 3502	26



# Glass Supported Drop Wire 2, 3 and 6 Pair

BELL SYSTEM TYPE AND RDUP (RUS)

## Spec. 4292-4294



### Product Construction:

#### Conductors:

- 22 AWG solid annealed copper

#### Insulation:

- Color-coded high density polyethylene

#### Assembly:

- 2, 3 or 6 twisted pairs and rip cord placed parallel between the glass strength members

#### Jacket:

- Black, flame-retardant, weather- and abrasion-resistant PVC compound extruded over core assembly

### Application(s):

- Self-supporting drop wire intended for aerial service connection to the subscriber
- Compatible with "P" Clamp/Wedge type hardware
- Glass strength member is lightweight, easy to install
- No need for support wire grounding
- Not affected by salt air and corrosive environments

### Compliances:

- Telcordia (Bellcore) Specification GR-3163-CORE
- Rural Development Utility Program (RDUP) Bulletin 1753 F-204
- RoHS Compliant (effective 1/1/10)

### Packaging:

- Available in Pull-Pac® cartons (PP), coils (CL), reels (RL) and reelsaver (RS)

### Nominal Cable Data

CATALOG NUMBER	PAIRS	AWG	O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2090021	2	22	0.20 x 0.40	39	500 RS
2090008*	2	22	0.20 x 0.40	39	750 PP
2090012	2	22	0.20 x 0.40	39	750 CL
2090010	2	22	0.20 x 0.40	39	1000 CL
2090053	2	22	0.20 x 0.40	39	3500 RL
2090052*	3	22	0.28 x 0.44	56	600 PP
2090018*	6	22	0.27 x 0.50	79	400 PP
2090014	6	22	0.27 x 0.50	79	400 CL
2090055	6	22	0.27 x 0.50	79	500 CL
2090051	6	22	0.27 x 0.50	79	1000 RL
2090056	6	22	0.27 x 0.50	79	2500 RL
2090013	6	22	0.27 x 0.50	79	3500 RL

Data subject to change without notice. Contact your Customer Service Representative for latest information.  
 \* These Telecommunications wire items have sequential markings.



# Drop Wire

# Spec. 4295

BELL SYSTEM TYPE F DROP AND RDUP (RUS) PE-7

**Product Construction:**

**Conductors:**

- 18½ AWG solid 30% conductivity extra high strength copper-covered steel

**Sheath:**

- Black, flame-, weather- and abrasion-resistant PVC compound extruded over two conductors in a parallel configuration

**Polarity Identification:**

- Polarity ridge on one leg of the web located at 45° above the major axis of the wire cross-section

**Application(s):**

- Self-supporting one pair parallel conductor drop wire intended for aerial service connection to the subscriber

**Compliances:**

- Telcordia (Bellcore) Specification GR-3163-CORE
- Rural Development Utility Program (RDUP) Bulletin 1753 F-204 (RUS PE-7)
- ANSI/ICEA S-89-648-1993
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Available in coils (CL) and Pull-Pac® cartons (PP)



CATALOG NUMBER	PAIRS AWG	O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7021421	1	18½	0.130 x 0.255	24 1000 CL
7021496	1	18½	0.130 x 0.255	24 1000 PP

Data subject to change without notice. Contact your Customer Service Representative for latest information.



# C Rural Wire

BELL SYSTEM TYPE

# Spec. 4283

**Product Construction:**

**Conductors:**

- 14 or 12 AWG solid 30% conductivity extra high strength copper-covered steel

**Sheath:**

- Black, high density polyethylene compound extruded over two conductors in a parallel configuration

**Polarity Identification:**

- Polarity ridge on one minor face of the insulation located at 45° above the major axis of the wire cross-section

**Application(s):**

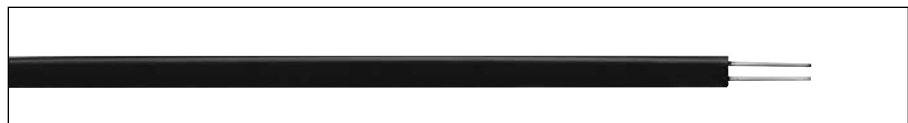
- Self-supporting one pair parallel conductor drop wire intended for aerial distribution in rural exchange areas

**Compliances:**

- Telcordia (Bellcore) Specification TA-TSY-000125
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Available in coils (CL) and reels (RL)



**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG	O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
6307482	1	14	0.160 x 0.280	35 1000 CL
3114733	1	14	0.160 x 0.280	35 5000 (21") RL
7013881	1	14	0.160 x 0.280	35 5500 (29") RL
2091013	1	12	0.190 x 0.315	58 4000 (21") RL

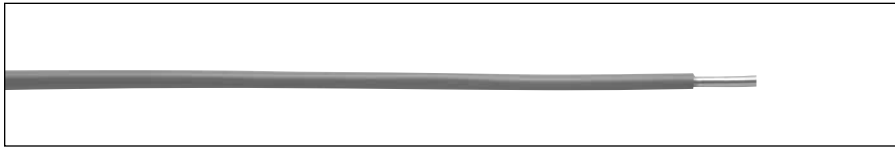
Data subject to change without notice. Contact your Customer Service Representative for latest information.



# PVC Insulated Ground Wire

BELL SYSTEM TYPE

# Spec. 2621



**Product Construction:**

**Conductor:**

- Solid annealed copper

**Insulation:**

- Light olive gray, flame-retardant, weather- and abrasion-resistant PVC compound extruded over the conductor

**Application(s):**

- Single conductor for connection to ground for customer premises or network equipment and station protectors

**Compliances:**

- Telcordia (Bellcore) Specification TA-TSY-000120
- UL Listed VW-1
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Available in coils (CL) and coils in cartons (CL/CTN)

**Nominal Cable Data**

CATALOG NUMBER	AWG	CABLE CODE	NOM. O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7515307	6	V-61-C	0.22	102	600 CL
7515265	10	V-101-C	0.15	39	200 CL/CTN

Data subject to change without notice. Contact your Customer Service Representative for latest information.



# Bare Ground Wire

BELL SYSTEM TYPE

# Spec. 2622



**Product Construction:**

**Conductor:**

- Solid annealed copper

**Application(s):**

- Single conductor for grounding aerial cables and pole-mounted equipment. Proper telephone co. grounding practices must be followed

**Compliances:**

- Telcordia (Bellcore) Specification TA-TSY-000120
- ASTM B-3
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Available in coils (CL) and coils in cartons (CL/CTN)

**Nominal Cable Data**

CATALOG NUMBER	AWG	CABLE CODE	NOM. O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2091090	6	B-6	0.16	86	50 CL/CTN
2091093	6	B-6	0.16	86	600 CL

Data subject to change without notice. Contact your Customer Service Representative for latest information.



# Multiple Pair Aerial Service Wire

# Spec. 4298

BELL SYSTEM TYPE

**Product Construction:**

**Conductors:**

- 22 AWG solid annealed copper

**Insulation:**

- Color-coded high density polyethylene

**Jacket:**

- The pairs and a .083" diameter galvanized steel messenger are enclosed in a black flame-retardant, weather- and abrasion-resistant PVC jacket in a Figure 8 configuration

**Application(s):**

- Provides multiple line telecommunication service connection to the subscriber

**Compliances:**

- Telcordia (Bellcore) Specification GR-3163-CORE
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Available in coils (CL) and reels (RL)



**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG	O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2091021	6	22	0.380 x 0.615	82 400 CL
2091015	6	22	0.380 x 0.615	82 500 RL
2091016	6	22	0.380 x 0.615	82 3500 RL

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Double Jacketed Buried Service Wire

## Spec. 4284

GOPHER-RESISTANT RDUP (RUS) PE-86  
ICEA S-86-634

### Nominal Cable Data

CATALOG NUMBER	PAIRS AWG		O.D. INCHES	WEIGHT LBS/MFT	STANDARD LENGTH (FT)
2095061	2	22	0.32	56	2500
2095002	2	22	0.32	56	5000
2095151	3	22	0.34	66	1000
2095064	3	22	0.34	66	2500
2095016	3	22	0.34	66	5000
2095150	6	22	0.40	95	1000
2095065	6	22	0.40	95	2500
2095063	6	22	0.40	95	5000
2095067	3	24	0.31	54	2500
2095066	3	24	0.31	54	5000
2095068	6	24	0.36	74	2500
2095069	6	24	0.36	74	5000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

### Product Construction:

**Conductors:**

- Solid annealed copper

**Insulation:**

- High density polyethylene

**Pairing:**

- Varying pair lays

**Core Filling:**

- 80°C filling and flooding compounds

**Inner Jacket:**

- Linear low density polyethylene

**Shield:**

- 0.005" corrugated copper-clad alloy steel tape

**Rip Cord:**

- Under the outer jacket

**Outer Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for use in buried service application to the subscriber loops
- The shielding material provides resistance to gopher damage

**Compliances:**

- ICEA S-86-634
- RDUP 7 CFR 1755.860 (RUS PE-86) for 2 and 3 pair constructions, formerly PE-54 CCS
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Non-returnable plywood reels in lengths as shown above

# Double Jacketed Buried Service Wire

# Spec. 4287

WITH ALUMINUM SHIELD ICEA S-86-634

**Product Construction:**

**Conductors:**

- Solid annealed copper

**Insulation:**

- High density polyethylene

**Pairing:**

- Varying pair lays

**Core Filling:**

- 80°C filling and flooding compounds

**Inner Jacket:**

- Linear low density polyethylene

**Shield:**

- Polymer-coated 0.008" aluminum tape

**Rip Cord:**

- Under the outer jacket

**Outer Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for use in buried service application to the subscriber loops

**Compliances:**

- ICEA S-86-634
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Non-returnable plywood reels in lengths as shown above



**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2095138	2	22	0.33	51	1000
2095125	2	22	0.33	51	2500
2095126	2	22	0.33	51	5000
2095146	3	22	0.35	62	1000
2095127	3	22	0.35	62	2500
2095128	3	22	0.35	62	5000
2095137	6	22	0.41	88	1000
2095129	6	22	0.41	88	2500
2095130	6	22	0.41	88	5000
2095131	2	24	0.30	42	2500
2095132	2	24	0.30	42	5000
2095133	3	24	0.32	54	2500
2095134	3	24	0.32	54	5000
2095135	6	24	0.33	68	2500
2095136	6	24	0.33	68	5000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

**Double Jacketed Buried Service and Distribution Wire Spec. 3503**

BELL SYSTEM TYPE—GOPHER-RESISTANT

**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2095102	3	19	0.42	99	5000
2095106	6	19	0.51	152	5000
2095089	3	22	0.34	67	1200
2095090	3	22	0.34	67	3000
2095091	3	22	0.34	67	5000
2095094	6	22	0.40	95	800
2095095	6	22	0.40	95	3000
2095096	6	22	0.40	95	5000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

**Product Construction:****Conductors:**

- 22 or 19 AWG solid annealed copper

**Insulation:**

- High density polyethylene

**Pairing:**

- Varying pair lays

**Core Filling:**

- 80°C filling compound

**Inner Jacket:**

- Linear low density polyethylene

**Shield:**

- 0.005" corrugated copper-clad alloy steel tape

**Rip Cords:**

- Under each jacket

**Outer Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for use in buried service application to the subscriber loops
- The shielding material provides resistance to gopher damage

**Compliances:**

- Telcordia (Bellcore) Specification GR-3163-CORE
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Non-returnable plywood reels in lengths as shown above

# Single Jacketed Buried Service Wire

# Spec. 3502

BELL SYSTEM TYPE C SERVICE

**Product Construction:**

**Conductors:**

- 22 AWG solid annealed copper

**Insulation:**

- High density polyethylene

**Pairing:**

- Varying pair lays

**Core Filling:**

- 80°C filling and flooding compounds

**Core Wrap:**

- Polyester tape

**Shield:**

- 0.004" corrugated commercial bronze or copper-clad steel tape

**Rip Cord:**

- Under the jacket

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for use in buried service application to the subscriber loops

**Compliances:**

- Telcordia (Bellcore) Specification GR-3163-CORE
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Non-returnable plywood reels in lengths as shown above



**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2095160	3	22	0.30	55	1200
2095084	3	22	0.30	55	3000
2095086	3	22	0.30	55	5000
2095161	6	22	0.37	77	800
2095098	6	22	0.37	77	3000
2095099	6	22	0.37	77	5000

Data subject to change without notice. Contact your Customer Service Representative for latest information.



# Technical Information

# 4

The complexity of today's Outside Voice and Data transmissions has generated an increasing demand for more technical information. In the current business world, customer service representatives, engineers, distributors and end-users do not have time to search for answers to their technical questions.

To this end, General Cable is including a limited technical section to help simplify these decisions and enable you to more expeditiously locate the products you need and answer product-specific questions.

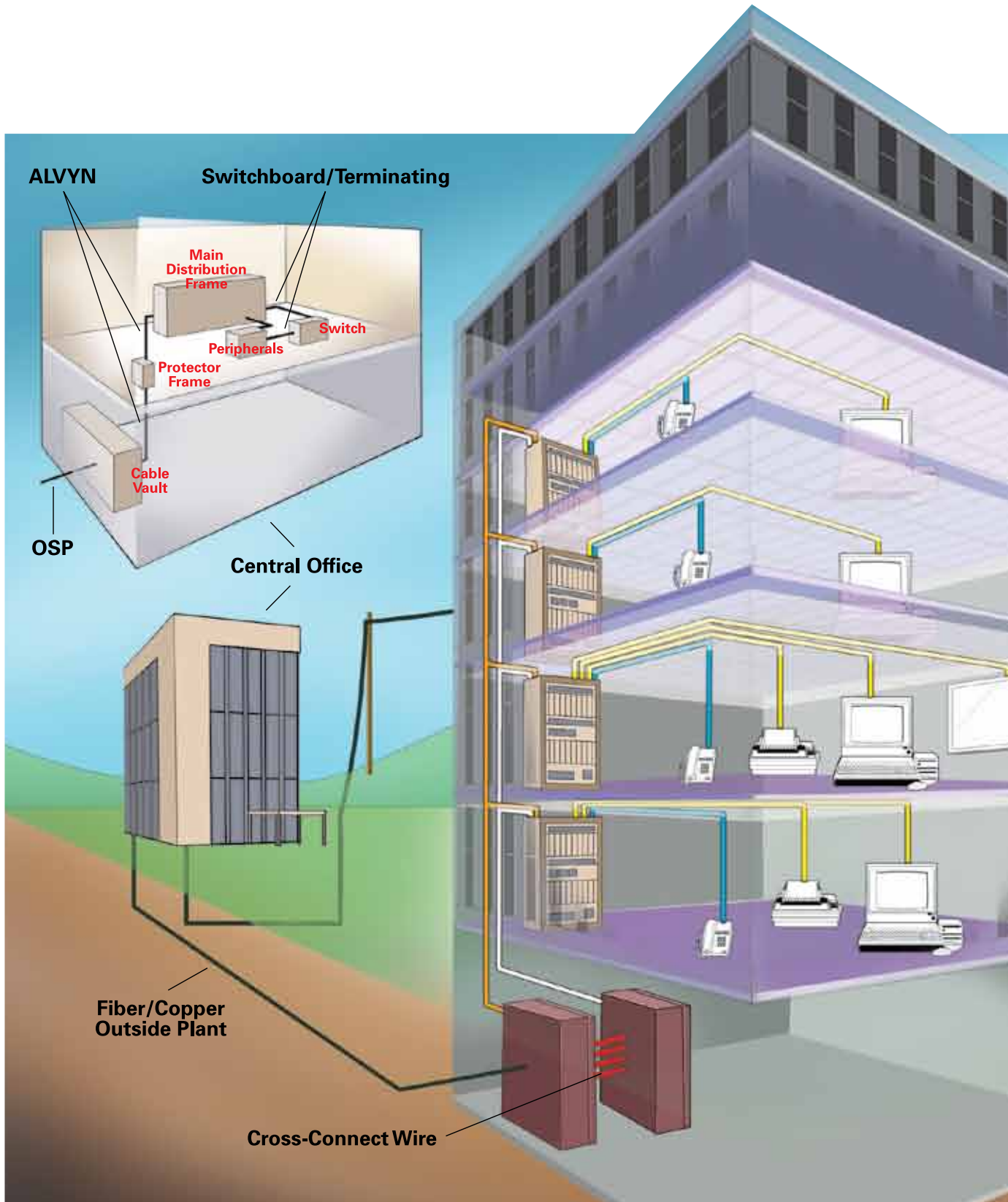
Reel size and weight charts based on O.D. are available upon request from your Customer Service Representative.

Sag and Tension tables are available on the Telecommunications Web page under "Resources/Services."

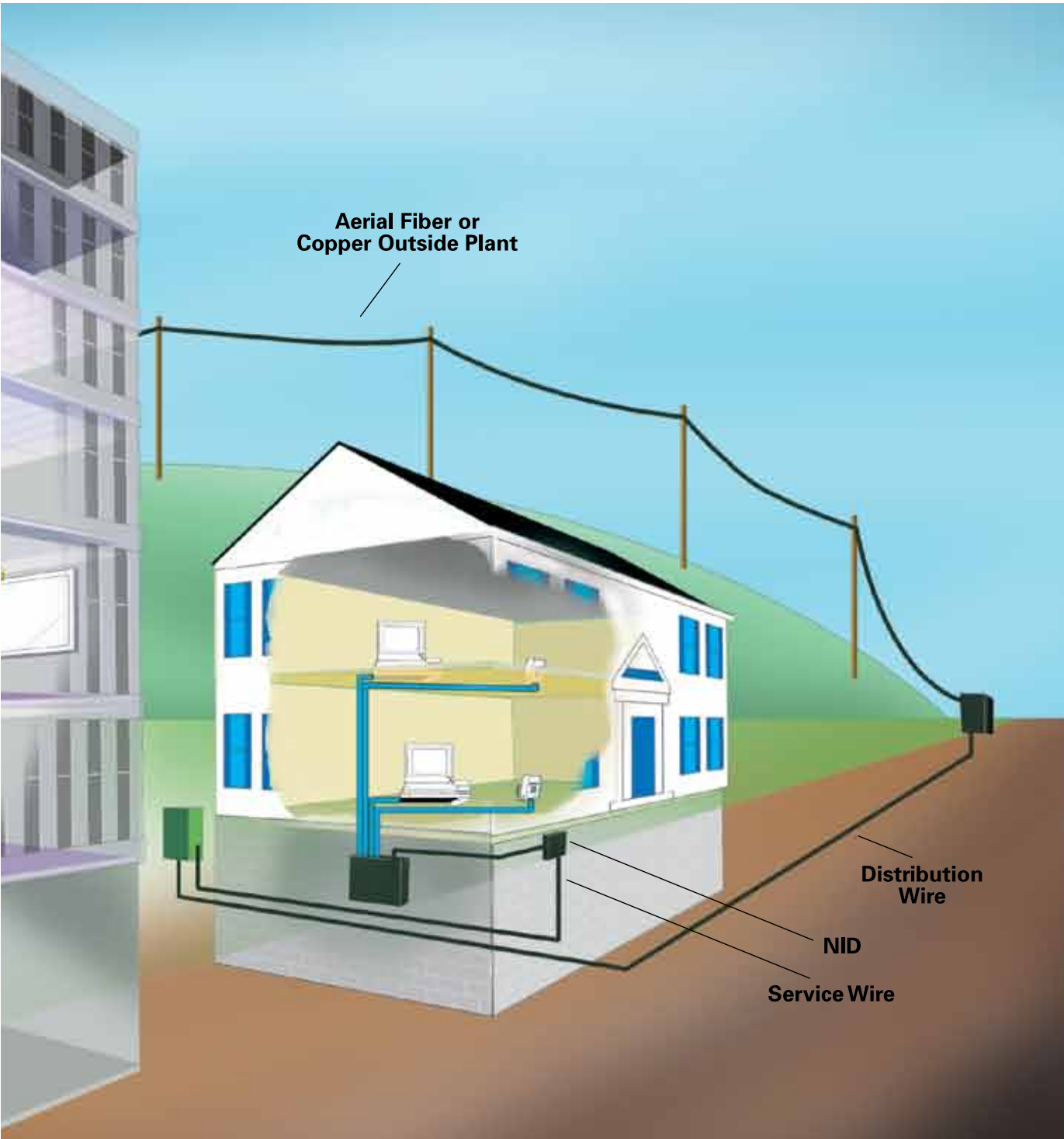
For additional technical information, please contact your sales representative, our customer service department or visit [www.generalcable.com](http://www.generalcable.com). Select "Telecommunications" under Products, then select "Technical Information."

Index	Page
Local Distribution Network	28-29
Color Code Chart	30-31
Glossary	32-34
Part Number Index	35-36

# Local Distribution Network



# Local Distribution Network



# Color Code Chart

## PLASTIC INSULATED COMMUNICATION CABLES

### 25 PAIR UNIT COLORS

PAIR NUMBER	RING COLOR	TIP COLOR	PAIR NUMBER	RING COLOR	TIP COLOR
1	Blue	White	13	Green	Black
2	Orange	White	14	Brown	Black
3	Green	White	15	Slate	Black
4	Brown	White	16	Blue	Yellow
5	Slate	White	17	Orange	Yellow
6	Blue	Red	18	Green	Yellow
7	Orange	Red	19	Brown	Yellow
8	Green	Red	20	Slate	Yellow
9	Brown	Red	21	Blue	Violet
10	Slate	Red	22	Orange	Violet
11	Blue	Black	23	Green	Violet
12	Orange	Black	24	Brown	Violet
			25	Slate	Violet

### UNIT BINDER COLORS FOR FULL COLOR CODE

GROUP NUMBER	BINDER COLORS	PAIR RANGE
1	White - Blue	1 - 25
2	White - Orange	26 - 50
3	White - Green	51 - 75
4	White - Brown	76 - 100
5	White - Slate	101 - 125
6	Red - Blue	126 - 150
7	Red - Orange	151 - 175
8	Red - Green	176 - 200
9	Red - Brown	201 - 225
10	Red - Slate	226 - 250
11	Black - Blue	251 - 275
12	Black - Orange	276 - 300
13	Black - Green	301 - 325
14	Black - Brown	326 - 350
15	Black - Slate	351 - 375
16	Yellow - Blue	376 - 400
17	Yellow - Orange	401 - 425
18	Yellow - Green	426 - 450
19	Yellow - Brown	451 - 475
20	Yellow - Slate	476 - 500
21	Violet - Blue	501 - 525
22	Violet - Orange	526 - 550
23	Violet - Green	551 - 575
24	Violet - Brown	576 - 600

### UNIT BINDER COLORS FOR MIRROR IMAGE 100 PAIR SUPER-UNIT

GROUP NUMBER	BINDER COLORS	PAIR RANGE
1	Blue	1 - 25
2	Orange	26 - 50
3	Green	51 - 75
4	Brown	76 - 100

### 300 PAIR SUPER-UNIT

GROUP NUMBER	BINDER COLORS	PAIR RANGE
1	White - Blue	1 - 25
2	White - Orange	26 - 50
3	White - Green	51 - 75
4	White - Brown	76 - 100
5	White - Slate	101 - 125
6	Red - Blue	126 - 150
7	Red - Orange	151 - 175
8	Red - Green	176 - 200
9	Red - Brown	201 - 225
10	Red - Slate	226 - 250
11	Black - Blue	251 - 275
12	Black - Orange	276 - 300

### SUPER-UNIT BINDER COLORS FOR MIRROR IMAGE (See drawings on the next page)

### SPARE PAIRS FOR MIRROR IMAGE

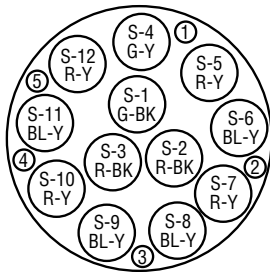
PAIR NUMBER	PAIR COLORS
1	White - Red
2	White - Black
3	White - Yellow
4	White - Violet
5	Red - Black
6	Red - Yellow
7	Red - Violet
8	Black - Yellow
9	Black - Violet
10	Yellow - Violet
11	Blue - Orange
12	Blue - Green
13	Blue - Brown
14	Blue - Slate
15	Orange - Green

### SUPER-UNIT BINDER COLORS FOR FULL COLOR CODE

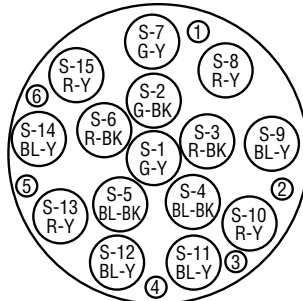
S.U. BINDER COLOR	PAIR RANGE
White	1 - 600
Red	601 - 1200
Black	1201 - 1800
Yellow	1800 - 2400

# Color Code Chart

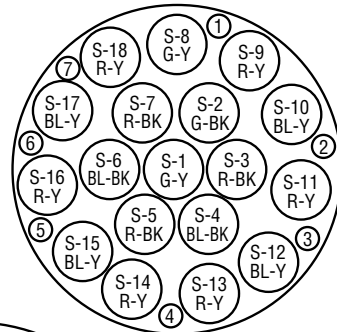
## SUPER-UNIT BINDER COLORS FOR MIRROR IMAGE



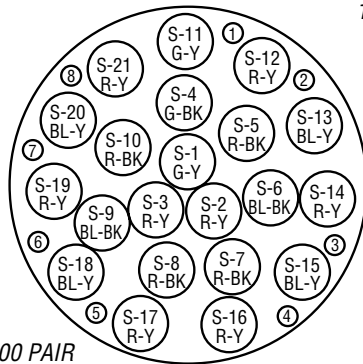
1200 PAIR



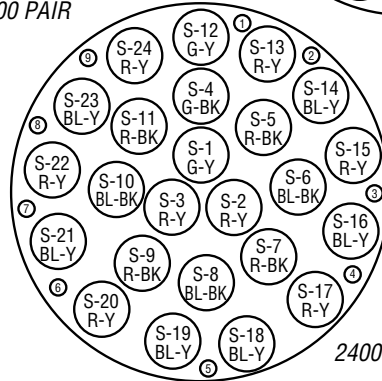
1500 PAIR



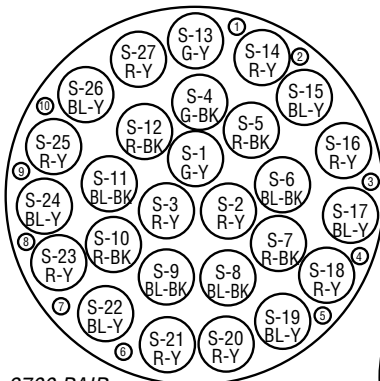
1800 PAIR



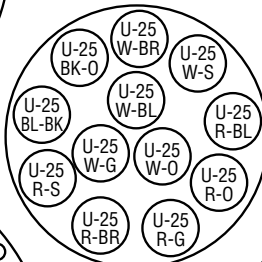
2100 PAIR



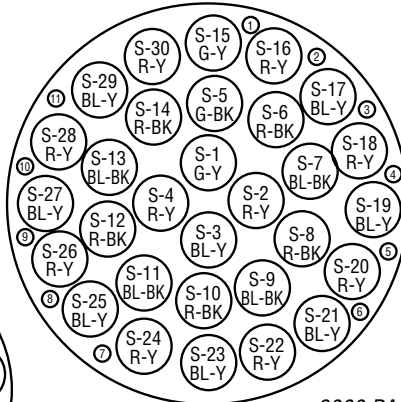
2400 PAIR



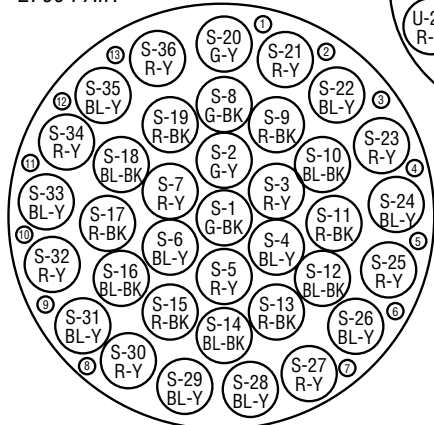
2700 PAIR



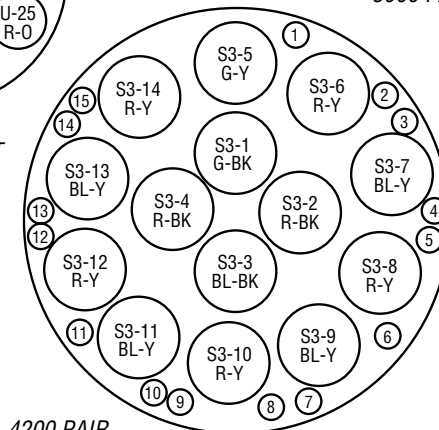
300 PAIR  
SUPER-UNIT



3000 PAIR



3600 PAIR



4200 PAIR

# Glossary

**Access Line:** A local access connection (fixed or wireless) between a customer's premises and a carrier's central office switch.

**Aerial Cable:** Cable suspended in the air on poles or other overhead structures.

**Air Core:** A telephone outside plant cable construction for aerial and duct installation in which the insulated conductors in the cable core are surrounded by air.

**Alloy:** A combination of two or more metals to form a new or different metal, having specific or desirable qualities.

**ALPETH:** Telephone cable sheath employing a corrugated aluminum shield and an outer polyethylene jacket.

**American Wire Gauge: (AWG)**

A standard used in the determination of the physical size of a conductor determined by its circular mil area. AWG is used in the U.S. to designate the size of wire and conductors. The gauge numbers are retrogressive—the larger the gauge number the smaller the wire.

**Analog Signal:** A signal in which the intelligence is represented by continuously varying quantities.

**Anneal:** The act of softening a metal, such as copper, by means of heat to render it less brittle.

**Armor:** Mechanical protection usually accomplished by a metallic layer of tape, braid or served wires. Normally found only over the outer sheath.

**ASP:** A cable sheath consisting of a corrugated aluminum (A) shield, corrugated steel (S) shield, flooding compound and an outer polyethylene (P) jacket.

**ASTM:** Abbreviation of the American Society for Testing and Materials, a non-profit industry-wide organization which publishes standards, methods of test, recommended practices, definitions and other related material.

**Attenuation:** Power loss in an electrical system. In cables, generally expressed in dB per unit length, usually 1,000 feet.

**Bandmarking:** A circumferential color band applied to an insulated conductor at regular intervals for identification.

**Bandwidth:** The frequency range of electrical signals transmitted.

**Binder:** Usually spirally wrapped tape or thread used for holding assembled cable components in place.

**Buried Cable:** A cable installed directly in the earth without use of underground conduit. Also called direct buried cable.

**Cable:** Insulated conductors or twisted group of insulated conductors used for the transmission of electrical energy.

**Cabling:** The act of twisting together two or more insulated components by machine to form a cable.

**Capacitance:** The ratio of the electrostatic charge on a conductor to a potential difference between the conductors required to maintain that charge.

**Carrier:** A telco that owns and operates its own network and provides transmission services to other service providers through its facilities.

**Central Office:** A building housing the telephone switching apparatus.

**Cold Bend:** A laboratory test procedure whereby a sample of wire or cable is wound around a mandrel of a specified size at a specified temperature for a given number of turns at a given rate of speed and examined for defects.

**Color Code:** A color system for circuit identification by use of solid colors, tracers, braids, surface marking, etc.

**Compound:** A term used to designate an insulating or jacketing material made by mixing two or more ingredients. To Compound: the combining of two or more different materials to make one material.

**Conductivity:** A term used in describing the capability of a material to carry an electrical charge. Usually expressed as a percentage of copper conductivity—copper being one hundred (100%) percent. Conductivity is expressed for a standard configuration of conductor.

**Conductor:** Any material capable of easily carrying an electrical charge.

**Conduit:** A tube or trough for protecting electrical wires and cables. It may be a rigid or flexible tube into which insulated electrical wires are pulled.

**Core:** In cables, a component or assembly of components over which additional components (shield, sheath, etc.) are applied.

**Crosstalk:** Signal interference between nearby conductors caused by the pickup of stray energy.

**Decibel (dB):** A standard of unit based on a logarithmic scale for expressing transmission gain or loss and relative power levels.

**Dielectric:** Any insulating medium which intervenes between two conductors and permits electrostatic attraction and repulsion to take place across it.

**Dielectric Constant:** The ratio of the capacitance of an insulated wire with that of the same wire uninsulated in air.

**Dielectric Strength:** The voltage which an insulation can withstand before breakdown occurs. Usually expressed as a voltage gradient (such as volts per mil).

**Dielectric Test:** A test in which a voltage higher than the rated voltage is applied for a specified time to determine the adequacy of the insulation under normal conditions.

**Digital Signal:** A signal in which the data is represented by a series of discrete steps or pulses.

**Digital Subscriber Line (DSL):** A technology used to increase the capacity of copper telephone lines.

**Distribution Cable:** The cable portion of the local outside plant network between the feeder cable and the subscriber.

**Drain Wire:** An uninsulated wire in a cable used to facilitate shield connection.

**Drawing:** In the manufacture of wire, pulling the metal through a die or series of dies in order to reduce the diameter to a specified size.

**Drop Wire:** A wire designed for use as service drops from aerial distribution terminals to subscriber station protectors.

**Duct:** An underground or overhead tube for carrying electrical conductors.

**Elongation:** The fractional increase in length of a material stressed in tension.

**Embossing:** A means of marker identification by means of thermal indentation leaving raised lettering on a cable's sheath material.

**Ethernet:** A local area network (LAN) which uses the CSMA/CD (Carrier Sense Multiple Access with Collision Detection) access method on a bus topography.

**Extrusion:** Method of continuously forcing plastic, rubber, or elastomer material through an orifice to apply insulation or jacketing over a conductor or cable core.

**Figure 8 Cable:** An aerial cable configuration in which the conductors and steel strand, which supports the cable, are integrally jacketed. A cross-section of the finished cable approximates the figure "eight".

# Glossary

**Filled Cable:** A telephone outside plant cable construction for direct buried installation in which the cable core is filled with a material that will prevent moisture from entering or passing through the cable.

**Flame Resistance:** Measure of a material's ability not to propagate flame once the source of heat is removed.

**Flammability:** Measure of a material's ability to support combustion.

**Foam Skin Cable:** A cable utilizing a foamed polyolefin inner layer covered by a solid polyolefin skin as the conductor insulation.

**Frequency:** The number of cycles, now expressed as hertz, by an alternating current in one second. The hertz is equivalent to the older unit cycles per second.

**Gauge:** A term used to denote the physical size of a wire.

**Ground:** 1) An electrical term meaning to connect to the earth or other large conducting body to serve as an earth thus making a complete electrical circuit; 2) A wire intended to be used for grounding (also called grounding conductor).

**Helical Stripe:** A continuous, colored, spiral stripe applied over the outer perimeter of an insulated conductor for circuit identification purposes.

**Hygroscopic:** Capable of absorbing moisture from the air.

**Impact Strength:** A test designed to ascertain the abuse a cable configuration can absorb, without physical or electrical breakdown, by impacting with a given weight, dropped from a given height, in a controlled environment.

**Impedance:** The total opposition that a circuit offers to the flow of alternating current at a particular frequency. It is a combination of resistance R and reactance X, measured in ohms.

**Inductance:** The property of a circuit or circuit element that opposes a change in current flow, thus causing current changes to lag behind voltage changes. It is measured in henrys.

**Insulated Wire:** A conductor of electricity covered with a non-conducting material.

**Insulation:** A non-conductive material usually surrounding or separating two conductive materials. Often called the dielectric in a radio frequency cable.

**Insulation Resistance:** That property of an insulating material which resists electrical current flow through the insulating material when a potential difference is applied.

**Integrated Service Digital Network (ISDN):** A digital data communications network providing full integration of data, voice and video.

**Interconnect Companies:** Companies which sell, install and maintain telephone systems for end users.

**Interexchange Carrier (IXC):** A long-distance telephone carrier authorized to carry transmissions between local access and transport areas.

**Internet Protocol (IP):** The set of rules that defines how information is packaged and addressed for delivery across the Internet.

**Internet Service Provider (ISP):** A company that offers consumers and businesses access to the internet and other related services.

**Interstices:** In cable construction, the spaces, valleys or voids between or around the cable's components.

**Jacket:** A material covering over a wire insulation or an assembly of components. An overall jacket on a complex cable grouping. Also called a sheath.

**Lay:** A term used in cable manufacturing to denote the distance of advance of one member of a group of spirally twisted members, in one turn, measured axially.

**Local Area Network (LAN):** A network spanning a limited geographical area, providing data communications between computers and peripherals, and switching equipment.

**Local Exchange Carrier (LEC):** A telephone company that provides the dial tone to the end consumer. Incumbent local exchange carriers (ILECs) are the Bell Operating companies and smaller independent phone companies that originally provided local phone services to specific geographic communities on a regulated, monopoly basis. CLECs are competitive local carriers created out of the Telecommunications Act of 1996.

**Local Number Portability (LNP):** The practice of letting a customer switch service from one local company to another without having to change their telephone number.

**Longitudinal Wrap:** A tape applied longitudinally with the axis of the core being covered, as opposed to a helical, or spiral, tape wrapped core.

**Marker Thread:** A colored thread laid parallel and adjacent to the strands of an insulated conductor which identifies the cable manufacturer. It may also denote a temperature rating or the specification to which the cable is made.

**Mil:** 1/1000 of an inch.

**Moisture Resistance:** The ability of a material to resist absorbing moisture from the air or when immersed in water.

**Mutual Capacitance (Cm):** The capacitance between two conductors when all other conductors, including the shield, are short circuited to ground.

**National Electrical Code (NEC):** A consensus standard published by the National Fire Protection Association (NFPA) and incorporated in OSHA regulations.

**Network:** 1) Series of points connected by communications channels; 2) Network of telephone lines normally used for dialed telephone calls; 3) Network of communications channels connected to the use of one customer. For purposes of data communications applications, components in a common geographical area, served by a common computer, or performing a common function may be defined as one network. Also defined as one or more interconnected data links.

**Ohm:** A unit of electrical resistance, the resistance of a circuit in which a potential difference of one volt produces a current of one ampere.

**Outside Plant (OSP):** All cables and wires extending outward from the network protectors on the main distribution frame to connect the terminal equipment to the Outside Plant.

**Pair:** Two wires forming a single circuit, held together by twisting, binding, or a common jacket.

**Parallel:** A construction in which two or more conductors are laid parallel and surrounded and separated by an insulating material.

**PASP:** A cable sheath consisting of an inner polyethylene (P) jacket, corrugated aluminum (A) shield, corrugated steel (S) and an outer polyethylene (P) jacket.

**PIC:** An abbreviation for Plastic Insulated Conductor: conductors covered with an extruded coating of plastic.

**Plasticizer:** A chemical agent added in compounding plastics to make them softer and more flexible.

# Glossary

**Polyethylene:** A family of insulating materials derived from polymerization of ethylene gas. They are basically pure hydrocarbon resins with excellent dielectric properties.

**Polyvinyl Chloride (PVC):** A general purpose thermoplastic widely used for wire and cable insulations and jackets.

**Pressurization:** The use of pressurized gas or dry air inside Air Core cables to prevent the entry of water at faulty splices or minor sheath cracks. It can also trigger an alarm when major faults occur and can assist in locating the damaged areas.

**Pulling Eye:** A device which may be fastened to the conductor(s) or jacket of a cable or formed by or fastened to the wire armor and to which a hook or rope may be directly attached in order to pull the cable through a duct.

**Put-Up:** Refers to the packaging of wire and cable. The term itself refers to the quantity of product that is ready to be stored or shipped.

**Regional Bell Operating Company (RBOC):** A holding company formed by the divestiture of AT&T to provide both regulated and non-regulated telephone services.

**Resistance:** The property of an electric circuit which determines for a given current the rate at which electric energy is converted into heat and has a value such that the current squared multiplied by the resistance gives the power converted.

**Restriction on Hazardous Substances (RoHS):** The European Commission's Directive 2002/95/EC adopted January 27, 2003, also known as "RoHS," which restricts the use of certain hazardous substances in electrical and electronic equipment.

**Ring Banding:** See Bandmarking.

**Rip Cord:** A cord placed directly under the jacket of a cable in order to facilitate stripping (removal) of the jacket.

**Screened Cables:** A cable core design where an aluminum shield divides the cable core into two electrically separate compartments.

**Sheath:** The combination of a metallic shield and an extruded plastic jacket applied as the outermost covering on a cable. In the absence of a shield, the extruded jacket may be designated as a sheath.

**Shield:** A metallic layer placed around an insulated conductor or group of conductors to prevent electrostatic or electromagnetic interference between the enclosed wires and external fields. This shield can be braided or served wires, foil wrap, foil backed tape, a metallic tube, or conductive vinyl or rubber. When a metallic braid of tinned or bare copper is applied over the insulated conductor, the shielding effectiveness is in proportion to the amount of coverage, usually expressed as a percentage.

**Spark Test:** A test designed to locate pinholes in a wire's insulation by application of an electrical potential across the material for a very short period of time while the wire is drawn through an electrode field with one end of the wire grounded.

**STALPETH:** A cable sheath consisting of a corrugated steel (ST) shield applied over a corrugated aluminum (AL) shield and an outer polyethylene (PETH) jacket.

**Stranding:** The manufacturing process by which cable components are assembled around a central piece, forming a round core.

**Tank Test:** A voltage dielectric test in which the wire or cable test sample is submerged in water and voltage is applied between the conductor and water as ground.

**Temperature Rating:** The maximum temperature at which the insulating material may be used in continuous operation without loss of its basic properties.

**Tensile Strength:** A term denoting the greatest longitudinal tensile stress a substance can bear without tearing apart or rupturing.

**Thermoplastic:** Material that will soften and distort from its formed shape by heating above a critical temperature peculiar to the material.

**Tinned Wire:** Copper wire that has been coated with a layer of tin or solder to simplify soldering.

**Tracer Stripe:** When more than one color coding stripe is required, the first, or widest, stripe is the base stripe; the other, usually narrower stripes, being termed tracer stripes.

**Twisted Pair:** Two insulated conductors spiraled together.

**UL:** Abbreviation for Underwriters Laboratories, a non-profit independent organization, which operates a listing service for electrical and electronic materials and equipment.

## Unbundled Network Element Provider

**(UNE-P):** The wholesale purchase of all network elements from the RBOC, with the CLEC retaining the responsibility for integrating the elements together in order to complete connections and provide service.

**Voice Frequency:** Any of the frequencies that are audible to the human ear. For telephone transmission the range is generally from 300 to 3,400 Hz.

**Volt:** The standard unit of electromotive force or electrical pressure. One volt is the amount of pressure that will cause one ampere of current to flow through one ohm of resistance.

**Voltage Rating:** The highest voltage that may be continuously applied to a wire in conformance with standards or specifications.

**VW-1:** A test used by Underwriters Laboratories to classify wires and cables with regard to their resistance to burning. (Formerly designated as FR-1.)

**Wall Thickness:** A term expressing the thickness of a layer of applied insulation or jacket.

**Wide Area Network (WAN):** A network spanning a broad geographical area, providing data communications between computers and peripherals, and switching equipment.

**Wire:** 1) A single piece of slender, flexible metal, ranging in approximate size from a piece that is difficult to bend by hand to a fine thread. 2) Several wires as in (1) twisted together.



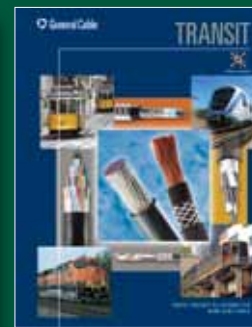
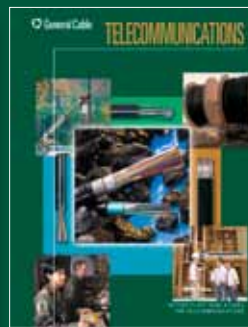
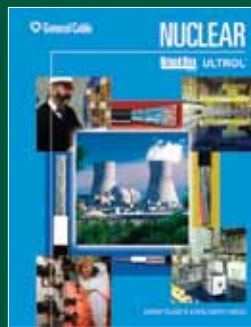
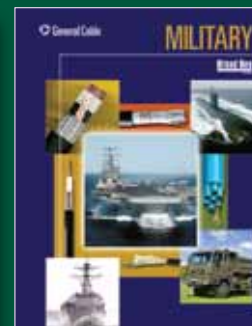
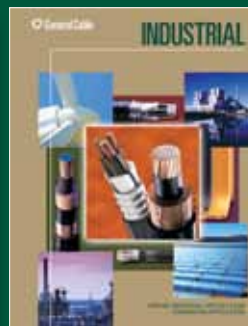
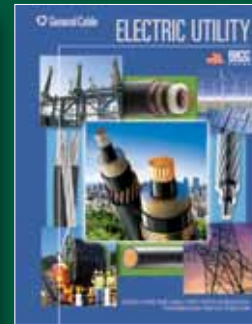
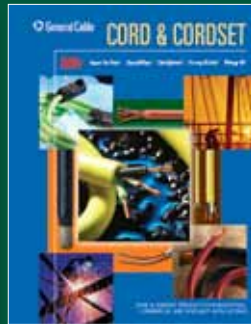
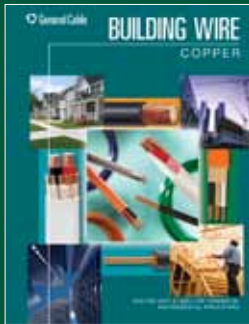
# Part Number Index

CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE
2010078.....	8	2036334.....	15	2095065.....	23	6937817.....	4	6987762.....	16
2010079.....	8	2036335.....	15	2095066.....	23	6937833.....	4	6987770.....	16
2010080.....	8	2036336.....	15	2095067.....	23	6937841.....	4	6987788.....	16
2010081.....	8	2036337.....	15	2095068.....	23	6937858.....	4	6987796.....	16
2010083.....	8	2036338.....	15	2095069.....	23	6937866.....	4	6987804.....	16
2010084.....	8	2036339.....	15	2095084.....	26	6964787.....	4	6987812.....	16
2012000.....	3	2036340.....	15	2095086.....	26	6964795.....	4	6987820.....	16
2012001.....	3	2036341.....	15	2095089.....	25	6964803.....	4	6987838.....	16
2012004.....	3	2036342.....	15	2095090.....	25	6964811.....	4	6987846.....	16
2012005.....	3	2036343.....	15	2095091.....	25	6968762.....	4	6987853.....	16
2012006.....	3	2036344.....	15	2095094.....	25	6968770.....	4	6987861.....	16
2012010.....	3	2036345.....	15	2095095.....	25	6983381.....	4	6987879.....	16
2012011.....	3	2036346.....	15	2095096.....	25	6987218.....	4	6987887.....	16
2012015.....	3	2039061.....	17	2095098.....	26	6987275.....	4	6987895.....	16
2012016.....	3	2039062.....	17	2095099.....	26	6987374.....	8	7013881.....	20
2012020.....	3	2039063.....	17	2095102.....	25	6987382.....	8	7021421.....	20
2036300.....	15	2039064.....	17	2095106.....	25	6987390.....	8	7021496.....	20
2036301.....	15	2090008.....	19	2095125.....	24	6987408.....	8	7071608.....	14
2036302.....	15	2090010.....	19	2095126.....	24	6987416.....	8	7071616.....	14
2036303.....	15	2090012.....	19	2095127.....	24	6987424.....	8	7502008.....	8
2036307.....	15	2090013.....	19	2095128.....	24	6987481.....	16	7502024.....	7
2036308.....	15	2090014.....	19	2095129.....	24	6987499.....	16	7502032.....	7
2036309.....	15	2090018.....	19	2095130.....	24	6987507.....	16	7502040.....	7
2036310.....	15	2090021.....	19	2095131.....	24	6987515.....	16	7502057.....	7
2036311.....	15	2090051.....	19	2095132.....	24	6987523.....	16	7502065.....	7
2036312.....	15	2090052.....	19	2095133.....	24	6987572.....	16	7502073.....	7
2036313.....	15	2090053.....	19	2095134.....	24	6987580.....	16	7502081.....	7
2036314.....	15	2090055.....	19	2095135.....	24	6987606.....	16	7502099.....	7
2036320.....	15	2090056.....	19	2095136.....	24	6987622.....	16	7502107.....	8
2036321.....	15	2091013.....	20	2095137.....	24	6987630.....	16	7502180.....	7
2036322.....	15	2091015.....	22	2095138.....	24	6987648.....	16	7502198.....	7
2036323.....	15	2091016.....	22	2095146.....	24	6987655.....	16	7502214.....	7
2036324.....	15	2091021.....	22	2095150.....	23	6987663.....	16	7502230.....	7
2036325.....	15	2091090.....	21	2095151.....	23	6987671.....	16	7502248.....	7
2036326.....	15	2091093.....	21	2095160.....	26	6987705.....	16	7502958.....	16
2036327.....	15	2095002.....	23	2095161.....	26	6987713.....	16	7503485.....	4
2036328.....	15	2095016.....	23	3114733.....	20	6987721.....	16	7503543.....	7
2036329.....	15	2095061.....	23	6307482.....	20	6987739.....	16	7503550.....	7
2036330.....	15	2095063.....	23	6937064.....	4	6987747.....	16	7503576.....	7
2036331.....	15	2095064.....	23	6937767.....	4	6987754.....	16	7503592.....	7

# Part Number Index

CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE
7503600.....	7	7512650.....	16	7524622.....	10	7525785.....	13	7527161.....	2
7503618.....	7	7512668.....	16	7524648.....	10	7525793.....	13	7527187.....	2
7503626.....	7	7513252.....	8	7524655.....	10	7525819.....	13	7527195.....	2
7503634.....	7	7513351.....	8	7524671.....	10	7525835.....	13	7527203.....	2
7503659.....	7	7515265.....	21	7524697.....	10	7525843.....	13	7527757.....	2
7503667.....	7	7515307.....	21	7524705.....	10	7525850.....	13	7527765.....	2
7503683.....	7	7516438.....	8	7524713.....	10	7525868.....	13	7527781.....	2
7503709.....	7	7516461.....	5	7524721.....	10	7525876.....	13	7528003.....	12
7503717.....	7	7516479.....	5	7525058.....	11	7526551.....	14	7528011.....	12
7503725.....	7	7516487.....	5	7525066.....	11	7526569.....	14	7528037.....	12
7503816.....	7	7516495.....	5	7525074.....	11	7526577.....	14	7528045.....	12
7503824.....	7	7517261.....	5	7525082.....	11	7526585.....	14	7528060.....	12
7503832.....	7	7517279.....	5	7525090.....	11	7526601.....	14	7528102.....	12
7503840.....	7	7517287.....	5	7525116.....	11	7526668.....	14	7528110.....	12
7506777.....	4	7517303.....	5	7525124.....	11	7526684.....	14	7528136.....	12
7506785.....	4	7517329.....	5	7525140.....	11	7526692.....	14	7528144.....	12
7506876.....	4	7517394.....	6	7525157.....	11	7526718.....	14	7528169.....	12
7506884.....	4	7517410.....	6	7525173.....	11	7526734.....	14	7528185.....	12
7506892.....	4	7517428.....	6	7525199.....	11	7526742.....	14	7528193.....	12
7506900.....	4	7517444.....	6	7525207.....	11	7526759.....	14	7528201.....	12
7506918.....	4	7517451.....	6	7525215.....	11	7526767.....	14	7528219.....	12
7506926.....	4	7517469.....	6	7525223.....	11	7526775.....	14	7528250.....	17
7506975.....	4	7517485.....	6	7525504.....	13	7526973.....	13	7528268.....	17
7506983.....	4	7517501.....	6	7525512.....	13	7526981.....	13	7528276.....	17
7506991.....	4	7524507.....	10	7525538.....	13	7526999.....	13	7528284.....	17
7507007.....	16	7524515.....	10	7525595.....	13	7527005.....	2	7528292.....	17
7507015.....	16	7524523.....	10	7525603.....	13	7527013.....	2	7528300.....	17
7507023.....	16	7524556.....	10	7525629.....	13	7527021.....	2	7528318.....	17
7508252.....	4	7524564.....	10	7525637.....	13	7527039.....	2	7528326.....	17
7510506.....	4	7524572.....	10	7525652.....	13	7527112.....	2	7528755.....	12
7510712.....	8	7524580.....	10	7525678.....	13	7527120.....	2	7528763.....	12
7510720.....	8	7524598.....	10	7525751.....	13	7527138.....	2	7528789.....	12
7512510.....	8	7524614.....	10	7525769.....	13	7527146.....	2		





### Other General Cable Products Offered



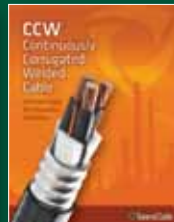
COMMODORE®  
CATALOG



MOR® POLYRAD®  
CATALOG



MV-RIG®  
CATALOG



CCW®  
CATALOG



X-TRACT® ESP  
CATALOG



GEPCO®  
CATALOG



SHEERWIRE™  
CATALOG

### General Cable

4 Tesseneer Drive  
Highland Heights,  
Kentucky 41076-9753  
U.S.A.  
info@generalcable.com

Telephone (800) 424-5666  
Fax (859) 547-8249  
International Telephone +1 859 572 8000  
International Fax +1 859 572 8058  
www.generalcable.com



Use your smartphone to view  
Interactive Catalog online

# TELECOMMUNICATIONS



OUTSIDE PLANT WIRE & CABLE  
FOR TELECOMMUNICATIONS  
SEPTEMBER 2012

Join the Wire Wizard for a quick, informative tour showing the interactive features of our catalogs



## WELCOME

### On-Line Catalog Features

- View the catalog in full screen mode by using the far left expansion logo on the menu bar. (Keyboard input may not work in full screen mode, which means you must leave the full screen mode in order to utilize the email function.)
- Click the “General Cable” logo on the left side of the menu bar to go to General Cable’s Web site.
- The “Product Selection Locator” or “Table of Contents” button in the center of the menu bar takes you to a fully interactive page. Click on any product category or listing to take you to the appropriate page. (All other page references throughout the catalog are also fully interactive.)
- The entire catalog’s contents can be searched using the Search button located in the upper right of the menu bar.
- Turn catalog pages by clicking your mouse on the top or bottom corner of the page or by using the forward or back arrows on the side of the page or on the bottom bar.
- Zoom to details on each page by clicking when the magnifying glass pointer is active. Click again to return to full view.
- Share the complete interactive catalog by selecting the “Share this Publication” icon located in the lower right on the bottom bar.
- Print all or selected pages using the Print icon located in the lower right on the bottom bar.
- The entire interactive catalog or individual pages can be downloaded as a PDF using the PDF icon located in the lower right on the bottom bar.
- Use “Crop part of page” icon located in the lower right on the bottom bar to take a snapshot of any part of a page and save as a jpg.

# Telecommunications Cables

This catalog contains in-depth information on the most comprehensive line of Telecommunications cables for the distribution of telecommunication signals for outside use.

The product and technical sections have been developed with an easy-to-use “spec-on-a-page” format. It features the latest information on Telecommunications cables, from applications and construction to detailed technical and specification data. There’s also a numerical part number index.

Our cables are readily available through our network of authorized stocking distributors and distribution centers.

We are dedicated to customer service and satisfaction—so call our team of professionally trained sales personnel to meet your application needs.



All information in this catalog is presented solely as a guide to product selection and is believed to be reliable. All printing errors are subject to correction in subsequent releases of this catalog. Although General Cable has taken precautions to ensure the accuracy of the product specifications at the time of publication, the specifications of all products contained herein are subject to change without notice.

GENERAL CABLE, BICC BRAND, CAROL BRAND, GENSPEED, NEXTGEN BRAND, PULL-PAC and TRU-MARK are trademarks of General Cable Technologies Corporation.

©2012. General Cable Technologies Corporation. Highland Heights, KY 41076  
All rights reserved. Printed in USA.

# Our Cables

## KEEP INFORMATION FLOWING QUALITY



General Cable is committed to meeting customer requirements through continuous quality improvements. As a significant part of our commitment to quality, General Cable’s manufacturing facilities are certified to the ISO 9001:2000 quality standard. Our telecommunications cable manufacturing facility has received TL 9000 quality standards registration as a supplement to the ISO program. This quality

system is based on the ISO 9001 program with added telecommunications-specific performance metrics. We strive to provide value optimization through innovation and quality solutions.

- Our in-house testing capabilities are extensive, with strict adherence to our product specifications as well as industry standards.
- Cables are safety listed and verified.
- Third-party testing labs like ETL are utilized to quantify and confirm our quality and provide final qualification data that sets the foundation for our extended product warranty.
- General Cable products have stood the test of time with proven reliability and performance.

## MANUFACTURING EXCELLENCE



All of General Cable’s Telecommunications wire and cable products are produced at facilities that have won the prestigious *INDUSTRYWEEK’S* Best Plants Award, given to the top 10 manufacturing plants in North America across all industries. This award annually honors a facility’s world-class manufacturing capabilities and its commitment to continuous improvement.

## CUSTOMER SERVICE



General Cable is dedicated to customer service and satisfaction. Call our team of professionally trained sales associates at

# 800-424-5666

with any questions to meet your application needs.

# Product Selection Locator

Section	Page
<b>1 Air Core Cables</b>	<b>1-8</b>
Air Core Cable . . . . . PE-22 AL . . . . . Spec. 2003 . . . . .	2
Figure 8 Air Core Cable . . . . . PE-38 AL . . . . . Spec. 2003-F8 . . . . .	3
Air Core ALPETH Cable . . . . . Bell Type BH*A & BK*A . . . . . Spec. 2101 . . . . .	4
Figure 8 Air Core ALPETH Cable . . . . . Bell Type BH*S & BK*S . . . . . Spec. 2102 . . . . .	5
Figure 8 Air Core ALPETH-GP Cable . . . . . Bell Type BH*P & BK*P . . . . . Spec. 2108 . . . . .	6
Air Core Bonded PASP Cable . . . . . Bell Type BH*H & BK*H . . . . . Spec. 2107 . . . . .	7
Air Core Foam Skin Bonded STALPETH Cable . . . . . Bell Type DC*Z . . . . . Spec. 2106 . . . . .	8
<b>2 Filled Core Cables</b>	<b>9-17</b>
Filled Solid Cable . . . . . RDUP (RUS) PE-39 AL . . . . . Spec. 2002 . . . . .	10
Filled Solid 5-Mil Copper Cable . . . . . RDUP (RUS) PE-39 CU . . . . . Spec. 2002 . . . . .	11
Filled Solid Copper-Bearing Gopher-Resistant Cable . . . . . RDUP (RUS) PE-39 GR . . . . . Spec. 2002 . . . . .	12
Filled Foam Skin Cable . . . . . RDUP (RUS) PE-89 AL . . . . . Spec. 2007 . . . . .	13
Filled Foam Skin CACSP Cable . . . . . RDUP (RUS) PE-89 CACSP . . . . . Spec. 2007 . . . . .	14
Filled Foam Skin ALPETH Cable . . . . . Bell Type AN*A . . . . . Spec. 2111 . . . . .	15
Filled Foam Skin ASP Cable . . . . . Bell Type AN*W . . . . . Spec. 2100 . . . . .	16
Filled Foam Skin "S" Screened ASP Cable . . . . . Bell Type KN*W . . . . . Spec. 2109-F . . . . .	17
<b>3 Wire Products</b>	<b>18-26</b>
Glass Supported Drop Wire 2, 3 and 6 Pair . . . . . Bell Type and RDUP (RUS) . . . . . Spec. 4292-4294 . . . . .	19
Drop Wire . . . . . Bell Type and RDUP (RUS) PE-7 . . . . . Spec. 4295 . . . . .	20
C Rural Wire . . . . . Bell Type . . . . . Spec. 4283 . . . . .	20
Ground Wire . . . . . Bell Type . . . . . Spec. 2621/2622 . . . . .	21
Multiple Pair Aerial Service Wire . . . . . Bell Type . . . . . Spec. 4298 . . . . .	22
Buried Service Wire - Gopher-Resistant . . . . . RDUP (RUS) PE-86 . . . . . Spec. 4284 . . . . .	23
Buried Service Wire - Aluminum Shield . . . . . ICEA S-86-634 . . . . . Spec. 4287 . . . . .	24
Buried Service Wire - Gopher-Resistant . . . . . Bell Type . . . . . Spec. 3503 . . . . .	25
Buried Service Wire - Bronze or CCS Shield . . . . . Bell Type . . . . . Spec. 3502 . . . . .	26
<b>4 Technical Information</b>	<b>27-36</b>
Local Distribution Network . . . . .	28-29
Color Code Chart . . . . .	30-31
Glossary . . . . .	32-34
Part Number Index . . . . .	35-36





**Our Green Initiative symbol recognizes our role and responsibility in promoting sustainability.**

**The symbol also reflects our commitment to achieving industry-leading standards and responding proactively to environmental global issues.**



**Look for our products with the RoHS symbol for your green building initiatives.**



**Visit [www.generalcable.com](http://www.generalcable.com)**  
Select "COMPANY," then select "Corporate Social Responsibility"





**Building Bridges** in the Sky



**Making Contact** with the World



**Directing Traffic** without Gridlock

General Cable is a leader in the development, design, manufacture, marketing and distribution of copper, aluminum and fiber optic wire and cable for the energy, industrial, specialty and communications markets.

Our products inspire progress worldwide ... customers use our value-added products to create global infrastructure that improves the standard of living for people everywhere.

Each day we're building business momentum — developing ideas into innovative solutions and industry-leading products, expanding geographic access and furthering our investment in highly capable associates, Lean Manufacturing, material science and technology resources.

General Cable is influencing the world ... with more than two-thirds of our sales generated outside North America and with more than 12,000 associates in 50 manufacturing facilities throughout 26 countries. As one of the largest wire and cable manufacturers, we are the *One Company Connecting the World*.

#### **Energy Cables**

Our cables carry energy across the world — through the air, underground and under the sea. Increasing demand for energy is accelerating investment in exploration, extraction, power generation, transmission and distribution — whether based on coal, natural gas, oil, nuclear, wind, solar or water.

#### **Industrial & Specialty Cables**

Our cables channel the power and signals that make equipment hum and engines run. From oil rigs and broadcast studios to cars and trains, and in commercial buildings, public venues, factory floors and special applications such as military, nuclear, marine and mining — we serve an extensive range of markets.

#### **Communications Cables**

Our cables keep information flowing — facilitating a non-stop stream of words and images around the world. We meet the high-speed bandwidth needs of global communications networks, from fiber optic submarine communications cables, copper and fiber aerial and underground cables to copper and fiber optic enterprise cables and system solutions.

#### **World Headquarters**

General Cable  
4 Tesseneer Drive  
Highland Heights, KY  
41076-9753 U.S.A.





**General Cable**  
**Telecommunications**

# Air Core Cables

Plastic insulated Air Core Cables provide a broad range of pair sizes for the distribution of telecommunication signals for outside use. These cables can be installed in underground ducts or strung between poles, lashed to a steel messenger or equipped with a built-in messenger wire.

An industry-standard color-coding system provides full identification of every pair through the use of 10 different insulating colors and non-hygroscopic unit binders.

Different optional sheath designs provide electrical shielding necessary for proper grounding and mechanical protection against rodents and other physical damage. A black, weather-resistant polyethylene jacket is used on all constructions for protection against long-term outdoor exposure.

The temperature range that Telecommunications cable can withstand is:

For storage and operation:  
-45°C to 80°C  
-49°F to 176°F

For installation:  
-30°C to 60°C  
-22°F to 140°F

All cables are equipped with surface-printed identification and sequential footage markings.

The cable design for 19, 22 and 24 AWG sizes has the transmission performance capability of 100Ω, Category 3 Backbone UTP Cables specified in TIA/EIA 568-C.

Our Telecommunications cable constructions contain no halogens (chlorine, fluorine, bromine or iodine), which means they are less toxic and more environmentally friendly. Look for the 17 FREE™ logo.

General Cable Air Core Cables are all proudly made in the U.S.A.

Index	Page
Air Core Cable PE-22 AL Spec. 2003	2
Figure 8 Air Core Cable PE-38 AL Spec. 2003-F8	3
Air Core ALPETH Cable Bell System Type BH*A & BK*A Spec. 2101	4
Figure 8 Air Core ALPETH Cable Bell System Type BH*S & BK*S Spec. 2102	5
Figure 8 Air Core ALPETH-GP Cable Bell System Type BH*P & BK*P Spec. 2108	6
Air Core Bonded PASP Cable Bell System Type BH*H & BK*H Spec. 2107	7
Air Core Foam Skin Bonded STALPETH Cable Bell System Type DC*Z Spec. 2106	8

# Air Core Cable

## Spec. 2003

PE-22 AL

**Core Construction:****Conductors:**

- Solid, annealed copper; sizes 19, 22 and 24 AWG

**Insulation:**

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**Sheath:****Aluminum Shield:**

- Corrugated, copolymer coated, 0.008" aluminum tape applied longitudinally with an overlap

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- For aerial installation by attachment to a support strand
- For underground installation when placed in a duct (pressurization is recommended)

**Compliances:**

- Formerly RDUP (RUS) Specification PE-22
- RoHS Compliant (effective 1/1/10)
- ANSI/ICEA S-85-625-2007

**Packaging:**

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request

**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7527757	6	19	0.49	102	5000
7527765	12	19	0.62	168	5000
7527781	25	19	0.79	310	5000
7527005	6	22	0.40	65	5000
7527013	12	22	0.49	102	5000
7527021	25	22	0.63	174	5000
7527039	50	22	0.90	308	5000
7527112	6	24	0.37	51	5000
7527120	12	24	0.43	74	5000
7527138	25	24	0.54	122	5000
7527146	50	24	0.67	209	5000
7527161	100	24	0.88	385	5000
7527187	200	24	1.18	720	2500
7527195	300	24	1.40	1060	2500
7527203	400	24	1.60	1375	2500

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Figure 8 Air Core Cable

PE-38 AL

## Spec. 2003-F8



### Nominal Cable Data

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2012020	6	19	0.96 x 0.49	229	5000
2012010	6	22	0.87 x 0.40	234	5000
2012011	12	22	0.96 x 0.49	259	5000
2012000	25	22	1.08 x 0.61	339	5000
2012001	50	22	1.28 x 0.81	466	5000
2012015	6	24	0.84 x 0.37	221	5000
2012016	12	24	0.90 x 0.43	242	5000
2012004	25	24	1.01 x 0.54	280	5000
2012005	50	24	1.14 x 0.67	376	5000
2012006	100	24	1.37 x 0.90	535	5000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

### Core Construction:

#### Conductors:

- Solid, annealed copper; sizes 19, 22 and 24 AWG

#### Insulation:

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

#### Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

#### Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

#### Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

### Figure 8 Sheath:

#### Aluminum Shield:

- Corrugated, copolymer coated, 0.008" aluminum tape applied longitudinally with an overlap

#### Support Messenger:

- A 1/4", 7 strand, extra high strength galvanized steel wire, fully flooded for corrosion protection

#### Jacket:

- Black, linear low density polyethylene is jacketed in an integral extrusion with the shielded core and support messenger to form a "Figure 8" configuration

### Application(s):

- Intended for aerial installation

### Compliances:

- Formerly RDUP (RUS) Specification PE-38
- RoHS Compliant (effective 1/1/10)
- ANSI/ICEA S-85-625-2007

### Packaging:

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request

# Air Core ALPETH Cable

## Spec. 2101

BELL SYSTEM TYPE BHBA (19 AWG) BKMA (24 AWG)  
 BHAA (22 AWG) BKTA (26 AWG)

**Core Construction:****Conductors:**

- Solid, annealed copper; sizes 19, 22, 24 and 26 AWG

**Insulation:**

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder
- 1200 pairs and larger are mirror image color code

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**ALPETH Sheath:****Aluminum Shield:**

- Corrugated 0.008" aluminum tape applied longitudinally with an overlap

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for aerial installation by attachment to a support strand

**Compliances:**

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available

**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7506975	50	19	1.10	582	3000
7506983	100	19	1.50	1080	3000
7506991	200	19	1.90	2087	1000
7510506	300	19	2.40	3099	1000
7506876	25	22	0.61	169	5000
7506884	50	22	0.79	305	3000
7506892	100	22	1.10	577	5000
6968770	200	22	1.50	1086	4000
7506900	300	22	1.70	1584	2500
6968762	400	22	1.90	2101	2500
6987275	600	22	2.30	3140	1000
6937817	900	22	2.80	4648	700
7506918	25	24	0.55	124	5000
7506926	50	24	0.65	208	10000
6937064	100	24	0.86	378	3000
6964803	200	24	1.10	716	6000
6964811	300	24	1.40	1034	5000
6964795	400	24	1.50	1350	4000
6964787	600	24	1.78	2037	1000
6983381	900	24	2.20	2982	1600
6937833	1200	24	2.50	3962	1000
7506777	1500	24	2.77	4894	800
6937841	1800	24	3.10	5889	800
7503485	400	26	1.30	886	2500
6987218	600	26	1.50	1317	3300
7508252	900	26	1.80	1934	2200
6937858	1200	26	2.05	2540	1000
6937866	1500	26	2.30	3155	1000
7506785	1800	26	2.50	3756	1000
6937767	2100	26	2.70	4382	1000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Figure 8 Air Core ALPETH Cable

## Spec. 2102

BELL SYSTEM TYPE BHBS (19 AWG) BKMS (24 AWG)  
BHAS (22 AWG) BKTS (26 AWG)



### Nominal Cable Data

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7516461	25	19	1.36 x 0.86	477	5000
7516479	50	19	1.61 x 1.11	746	2500
7516487	25	22	1.20 x 0.70	342	5000
7516495	50	22	1.35 x 0.85	480	5000
7517261	100	22	1.56 x 1.06	748	5000
7517279	25	24	1.12 x 0.62	287	10000
7517287	50	24	1.23 x 0.73	380	10000
7517303	100	24	1.42 x 0.92	556	5000
7517329	200	24	1.66 x 1.16	884	5000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

### Core Construction:

#### Conductors:

- Solid, annealed copper; sizes 19, 22, 24 and 26 AWG

#### Insulation:

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

#### Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

#### Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

#### Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

### Figure 8 Alpeth Sheath:

#### Aluminum Shield:

- Corrugated 0.008" aluminum tape applied longitudinally with an overlap

#### Support Messenger:

- A 1/4", 7 strand, extra high strength galvanized steel wire, fully flooded for corrosion protection

#### Jacket:

- Black, linear low density polyethylene is jacketed in an integral extrusion with the shielded core and support messenger to form a "Figure 8" configuration

### Application(s):

- Intended for aerial installation

### Compliances:

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

### Packaging:

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available



# Figure 8 Air Core ALPETH-GP Cable

## Spec. 2108

BELL SYSTEM TYPE BHPB (19 AWG) BKMP (24 AWG)  
BHAP (22 AWG) BKTP (26 AWG)

### Core Construction:

#### Conductors:

- Solid, annealed copper; sizes 19, 22, 24 and 26 AWG

#### Insulation:

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

#### Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

#### Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

#### Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

### Figure 8 ALPETH-GP Sheath:

#### Aluminum Shield:

- Corrugated, 0.008" aluminum tape applied longitudinally with an overlap

#### First Jacket:

- Black, linear low density polyethylene jacket over the aluminum tape

#### Steel Tape:

- Corrugated, 0.006" steel tape flooded on both sides applied longitudinally over the first jacket with an overlap

#### Support Messenger:

- A 1/4", 7 strand, extra high strength galvanized steel wire, fully flooded for corrosion protection

#### Outer Jacket:

- Black, linear low density polyethylene is applied in an integral extrusion over the steel tape and support messenger to form a "Figure 8" configuration

### Application(s):

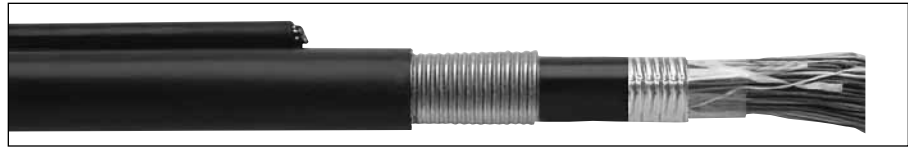
- Intended for aerial installation where additional mechanical protection is required

### Compliances:

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

### Packaging:

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available



### Nominal Cable Data

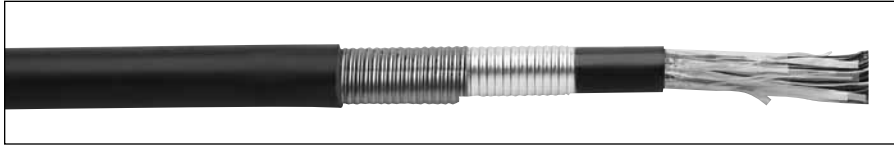
CATALOG NUMBER	PAIRS	AWG	O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7517394	25	19	1.63 x 1.13	675	5000
7517410	25	22	1.38 x 0.88	497	5000
7517428	50	22	1.56 x 1.06	664	5000
7517444	100	22	1.84 x 1.34	971	2500
7517451	25	24	1.33 x 0.83	433	5000
7517469	50	24	1.45 x 0.95	547	5000
7517485	100	24	1.63 x 1.13	758	5000
7517501	200	24	1.90 x 1.40	1129	2500

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Air Core Bonded PASP Cable

## Spec. 2107

BELL SYSTEM TYPE BHBH (19 AWG) BKMH (24 AWG)  
BHAH (22 AWG) BKTH (26 AWG)



### Nominal Cable Data

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7502180	25	19	0.98	440	5000
7502198	50	19	1.21	750	3000
7502214	100	19	1.62	1365	3000
7502230	200	19	2.10	2475	1000
7502248	300	19	2.59	3530	1000
7503543	25	22	0.76	280	5000
7503550	50	22	0.96	445	3000
7503576	100	22	1.20	750	3000
7503592	200	22	1.60	1360	4000
7503600	300	22	1.80	1893	1000
7503618	400	22	2.10	2490	2000
7503626	600	22	2.50	3582	1500
7503634	900	22	3.00	5265	700
7503659	25	24	0.68	220	10000
7503667	50	24	0.81	325	10000
7503683	100	24	1.00	530	10000
7503709	200	24	1.30	900	5000
7503717	300	24	1.50	1270	2500
7503725	400	24	1.68	1635	2500
7502073	600	24	2.00	2339	2000
7502040	900	24	2.40	3424	1600
7502081	1200	24	2.70	4418	900
7502065	1500	24	3.02	5422	900
7502057	1800	24	3.30	6580	800
7503816	400	26	1.40	1110	2500
7502024	600	26	1.70	1554	3300
7502032	900	26	2.05	2237	2200
7502099	1200	26	2.30	2923	1000
7503824	1500	26	2.51	3556	1000
7503832	1800	26	2.68	4205	1000
7503840	2100	26	2.83	4827	900

Data subject to change without notice. Contact your Customer Service Representative for latest information.

### Core Construction:

#### Conductors:

- Solid, annealed copper; sizes 19, 22, 24 and 26 AWG

#### Insulation:

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

#### Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

#### Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder
- 1200 pairs and larger are mirror image color code

#### Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

### Bonded PASP Sheath:

#### Inner Jacket:

- Black, linear low density polyethylene jacket over the core wrap

#### Aluminum Shield:

- Corrugated, 0.008" aluminum tape applied longitudinally

#### Steel Shield:

- Corrugated, copolymer coated, 0.006" steel tape applied longitudinally over the aluminum tape with an overlap

#### Outer Jacket:

- Black, linear low density polyethylene jacket bonded to the coated steel

### Application(s):

- Intended for pressurized direct buried installation in situations in which resistance to lightning and mechanical damage is required

### Compliances:

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

### Packaging:

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available



# Air Core Foam Skin Bonded STALPETH Cable

## Spec. 2106

BELL SYSTEM TYPE DCAZ (22 AWG) DCTZ (26 AWG)  
DCMZ (24 AWG)

**Core Construction:****Conductors:**

- Solid, annealed copper; sizes 22, 24 and 26 AWG

**Insulation:**

- Dual insulation consisting of an inner layer of foamed polyolefin surrounded by a solid polyolefin skin, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 3600 pairs and less: made up of 100 pair super-units consisting of four (4) 25 pair sub-units
- 4200 pair design: made up of 300 pair super-units consisting of twelve (12) 25 pair sub-units
- Each group is individually identifiable by color-coded unit binders
- All sizes are mirror image color code

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**Bonded STALPETH Sheath:****Aluminum Shield:**

- Corrugated, 0.008" aluminum tape applied longitudinally

**Steel Shield:**

- Corrugated, copolymer coated, 0.006" steel tape applied longitudinally over the aluminum tape with an overlap

**Outer Jacket:**

- Black, linear low density polyethylene jacket bonded to the coated steel

**Application(s):**

- Intended for pressurized urban underground duct installation
- Designed for large pair-count subscriber-serving cables leaving Central Offices where duct congestion is a prime concern

**Compliances:**

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available

**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2010083	900	22	2.50	4505	1000
2010084	1200	22	2.95	5948	1000
2010078	600	24	1.70	2022	1000
2010079	900	24	2.10	2960	1000
7516438	1200	24	2.35	3881	1000
7510712	1500	24	2.60	4795	1000
7502008	1800	24	2.80	5698	1000
7502107	2100	24	2.98	6583	1000
7510720	2400	24	3.21	7502	1000
2010080	600	26	1.44	1342	1000
7512510	900	26	1.70	1937	1000
6987374	1200	26	1.90	2524	1000
7513351	1500	26	2.10	3116	2000
6987382	1800	26	2.30	3687	1000
7513252	2100	26	2.44	4263	1000
6987390	2400	26	2.63	4832	1000
2010081	2700	26	2.70	5409	1000
6987408	3000	26	2.85	5978	1000
6987416	3600	26	3.15	7116	1000
6987424	4200	26	3.30	8246	1000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Filled Core Cables

Plastic insulated Filled Core Cables provide a broad range of pair sizes for the distribution of telecommunication signals for outside use. These cables can be installed in underground ducts and direct buried applications where protection against water and moisture entry is required and may also be installed aerially.

An industry standard color-coding system provides full identification of every pair through the use of 10 different insulating colors and non-hygroscopic unit binders. Designs are available using either a solid, polyolefin insulation or foamed polyolefin with a solid polyolefin skin. The solid insulation provides a more robust Core Construction, whereas the foam skin insulation offers space saving advantages.

A variety of sheath designs are available that provide electrical shielding necessary for proper grounding and mechanical protection against rodents and other physical damage. A black, weather-resistant polyethylene jacket is used on all constructions for protection against long-term outdoor exposure.

The temperature range that Telecommunications cable can withstand is:

For storage and operation:  
-45°C to 80°C  
-49°F to 176°F

For installation:  
-30°C to 60°C  
-22°F to 140°F

All cables are equipped with surface-printed identification and sequential footage markings.

The cable design for 19, 22 and 24 AWG sizes has the transmission performance capability of 100Ω, Category 3 Backbone UTP Cables specified in TIA/EIA 568-C.

Our Telecommunications cable constructions contain no halogens (chlorine, fluorine, bromine or iodine), which means they are less toxic and more environmentally friendly. Look for the 17 FREE™ logo.

General Cable Filled Core Cables are all proudly made in the U.S.A.

Index	Page
Filled Solid Cable RDUP (RUS) PE-39 AL Spec. 2002	10
Filled Solid 5-Mil Copper Cable RDUP (RUS) PE-39 CU Spec. 2002	11
Filled Solid Copper-Bearing Gopher-Resistant Cable RDUP (RUS) PE-39 GR Spec. 2002	12
Filled Foam Skin Cable RDUP (RUS) PE-89 AL Spec. 2007	13
Filled Foam Skin CACSP Cable RDUP (RUS) PE-89 CACSP Spec. 2007	14
Filled Foam Skin ALPETH Cable Bell System Type AN*A Spec. 2111	15
Filled Foam Skin ASP Cable Bell System Type AN*W Spec. 2100	16
Filled Foam Skin "S" Screened ASP Cable Bell System Type KN*W Spec. 2109-F	17

# Filled Solid Cable

# Spec. 2002

RDUP (RUS) PE-39 AL

**Core Construction:**

**Conductors:**

- Solid, annealed copper; sizes 19, 22 and 24 AWG

**Insulation:**

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

**Filling Compound:**

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**Sheath:**

**Aluminum Shield:**

- Corrugated, copolymer coated, 0.008" aluminum tape applied longitudinally with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for duct and direct buried installations where protection against water and moisture entry is required and may also be installed aerially

**Compliances:**

- Rural Development Utility Program (RDUP) 7 CFR 1755.390 (RUS PE-39)
- RoHS Compliant (effective 1/1/10)
- ANSI/ICEA S-84-608-2007

**Packaging:**

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request



**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7524507	6	19	0.60	140	5000
7524515	12	19	0.75	250	5000
7524523	25	19	0.97	450	5000
7524556	6	22	0.49	90	5000
7524564	12	22	0.57	137	5000
7524572	25	22	0.70	245	5000
7524580	50	22	0.95	425	5000
7524598	100	22	1.20	765	2500
7524614	6	24	0.46	68	5000
7524622	12	24	0.51	105	5000
7524648	25	24	0.60	170	5000
7524655	50	24	0.78	285	5000
7524671	100	24	1.00	525	5000
7524697	200	24	1.30	960	2500
7524705	300	24	1.60	1380	2500
7524713	400	24	1.82	1810	2500
7524721	600	24	2.20	2750	1250

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Filled Solid 5-Mil Copper Cable

RDUP (RUS) PE-39 CU

## Spec. 2002



### Nominal Cable Data

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7525058	6	22	0.46	100	5000
7525066	12	22	0.57	150	5000
7525074	25	22	0.71	265	5000
7525082	50	22	0.93	450	5000
7525090	100	22	1.20	805	2500
7525116	6	24	0.43	78	5000
7525124	12	24	0.50	115	5000
7525140	25	24	0.60	185	5000
7525157	50	24	0.77	305	5000
7525173	100	24	1.00	555	5000
7525199	200	24	1.35	995	2500
7525207	300	24	1.60	1425	2500
7525215	400	24	1.82	1870	2500
7525223	600	24	2.20	2810	1250

Data subject to change without notice. Contact your Customer Service Representative for latest information.

### Core Construction:

#### Conductors:

- Solid, annealed copper; sizes 19, 22 and 24 AWG

#### Insulation:

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

#### Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

#### Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

#### Filling Compound:

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

#### Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

#### Sheath:

#### Copper Shield:

- Corrugated 0.005" copper tape applied longitudinally with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

#### Jacket:

- Black, linear low density polyethylene

#### Application(s):

- Intended for duct and direct buried installations where protection against water and moisture entry is required and may also be installed aerially

#### Compliances:

- Rural Development Utility Program (RDUP) 7 CFR 1755.390 (RUS PE-39)
- RoHS Compliant (effective 1/1/10)
- ANSI/ICEA S-84-608-2007

#### Packaging:

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request



# Filled Solid Copper-Bearing Gopher-Resistant Cable Spec. 2002

RDUP (RUS) PE-39 GR

**Core Construction:**

**Conductors:**

- Solid, annealed copper; sizes 19, 22 and 24 AWG

**Insulation:**

- Solid, high density polyethylene, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

**Filling Compound:**

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**Sheath:**

**Copper-Bearing Shield:**

- Corrugated, copper-bearing gopher-resistant tape applied longitudinally with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for duct and direct buried installations where protection against water and moisture entry is required and may also be installed aerially
- The copper-bearing tape provides increased mechanical protection and gopher resistance

**Compliances:**

- Rural Development Utility Program (RDUP) 7 CFR 1755.390 (RUS PE-39)
- RoHS Compliant (effective 1/1/10)
- ANSI/ICEA S-84-608-2007

**Packaging:**

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request



**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7528755	6	19	0.58	155	5000
7528763	12	19	0.75	265	5000
7528789	25	19	0.97	475	5000
7528003	6	22	0.48	101	5000
7528011	12	22	0.55	150	5000
7528037	25	22	0.70	260	5000
7528045	50	22	0.93	445	5000
7528060	100	22	1.20	795	2500
7528102	6	24	0.43	77	5000
7528110	12	24	0.50	115	5000
7528136	25	24	0.60	180	5000
7528144	50	24	0.78	300	5000
7528169	100	24	1.00	550	5000
7528185	200	24	1.36	985	2500
7528193	300	24	1.60	1410	2500
7528201	400	24	1.80	1855	2500
7528219	600	24	2.20	2805	1250

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Filled Foam Skin Cable

RDUP (RUS) PE-89 AL

## Spec. 2007



### Nominal Cable Data

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7525504	6	19	0.57	127	5000
7525512	12	19	0.65	210	5000
7525538	25	19	0.85	395	5000
7525595	6	22	0.48	85	5000
7525603	12	22	0.52	125	5000
7525629	25	22	0.62	205	5000
7525637	50	22	0.78	365	5000
7525652	100	22	1.01	665	2500
7525678	200	22	1.36	1255	2500
7525751	6	24	0.39	63	5000
7525769	12	24	0.48	87	5000
7525785	25	24	0.54	142	5000
7525793	50	24	0.64	240	5000
7525819	100	24	0.84	435	5000
7525835	200	24	1.18	795	2500
7525843	300	24	1.37	1145	2500
7525850	400	24	1.48	1510	2500
7525868	600	24	1.82	2260	1250
7525876	900	24	2.22	3390	1250
7526973	1200	24	2.54	4430	1000
7526981	1500	24	2.80	5500	1000
7526999	1800	24	3.03	6660	1000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

### Core Construction:

#### Conductors:

- Solid, annealed copper; sizes 19, 22 and 24 AWG

#### Insulation:

- Dual insulation consisting of an inner layer of foamed polyolefin surrounded by a solid polyolefin skin, color-coded in accordance with telephone industry standards

#### Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

#### Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

#### Filling Compound:

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

#### Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

#### Sheath:

##### Aluminum Shield:

- Corrugated, copolymer-coated, 0.008" aluminum tape applied longitudinally with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

##### Jacket:

- Black, linear low density polyethylene

#### Application(s):

- Intended for duct and direct buried installations where protection against water and moisture entry is required and may also be installed aerially

#### Compliances:

- Rural Development Utility Program (RDUP) 7 CFR 1755.890 (RUS PE-89)
- RoHS Compliant (effective 1/1/10)
- ANSI/ICEA S-84-608-2007

#### Packaging:

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request





# Filled Foam Skin CACSP Cable

## Spec. 2007

RDUP (RUS) PE-89 CACSP

**Core Construction:**

**Conductors:**

- Solid, annealed copper; sizes 22 and 24 AWG

**Insulation:**

- Dual insulation consisting of an inner layer of foamed polyolefin surrounded by a solid polyolefin skin, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder

**Filling Compound:**

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**CACSP Sheath:**

**Aluminum Shield:**

- Corrugated, copolymer-coated, 0.008" aluminum tape applied longitudinally over the core wrap

**Steel Shield:**

- Corrugated, copolymer-coated, 0.006" steel tape applied longitudinally over the aluminum tape with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for duct and direct buried installations where protection against water and moisture entry is required and may also be installed aerially
- The addition of the steel tape armor provides increased mechanical protection and gopher resistance

**Compliances:**

- Rural Development Utility Program (RDUP) 7 CFR 1755.890 (RUS PE-89)
- RoHS Compliant (effective 1/1/10)
- ANSI/ICEA S-84-608-2007

**Packaging:**

- Standard lengths are shipped on non-returnable wood reels
- Non-standard packaging is available upon request



**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7526551	6	22	0.46	116	5000
7526569	12	22	0.55	170	5000
7526577	25	22	0.66	257	5000
7526585	50	22	0.85	440	5000
7526601	100	22	1.10	765	2500
7071608	6	24	0.41	90	5000
7526668	12	24	0.46	120	5000
7526684	25	24	0.57	183	5000
7526692	50	24	0.68	300	5000
7526718	100	24	0.88	510	5000
7526734	200	24	1.15	900	2500
7526742	300	24	1.45	1265	2500
7526759	400	24	1.55	1655	2500
7526767	600	24	1.82	2435	1250
7526775	900	24	2.20	3585	1250
7071616	1200	24	2.52	4635	1000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Filled Foam Skin ALPETH Cable

## Spec. 2111

BELL SYSTEM TYPE ANBA (19 AWG) ANMA (24 AWG)  
ANAA (22 AWG) ANTA (26 AWG)



### Nominal Cable Data

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2036300	25	19	0.83	392	5000
2036301	50	19	0.98	717	2500
2036302	100	19	1.50	1316	2500
2036303	200	19	2.00	2565	1250
2036307	25	22	0.61	208	5000
2036308	50	22	0.77	367	5000
2036309	100	22	1.02	683	2500
2036310	200	22	1.37	1286	2500
2036311	300	22	1.66	1867	1250
2036312	400	22	1.95	2503	1250
2036313	600	22	2.40	3747	1250
2036314	900	22	3.00	5653	1000
2036320	25	24	0.53	147	5000
2036321	50	24	0.64	245	5000
2036322	100	24	0.83	438	5000
2036323	200	24	1.10	815	2500
2036324	300	24	1.31	1165	2500
2036325	400	24	1.50	1532	2500
2036326	600	24	1.81	2304	1250
2036327	900	24	2.21	3436	1250
2036328	1200	24	2.50	4531	1000
2036329	1500	24	2.84	5617	1000
2036330	1800	24	3.09	6525	1000
2036331	2100	24	3.35	7897	750
2036334	25	26	0.45	104	5000
2036335	50	26	0.59	179	5000
2036336	100	26	0.75	314	5000
2036337	200	26	0.98	570	5000
2036338	300	26	1.20	833	2500
2036339	400	26	1.29	1062	2500
2036340	600	26	1.60	1534	1250
2036341	900	26	1.90	2248	1250
2036342	1200	26	2.14	2986	1250
2036343	1500	26	2.37	3677	1250
2036344	1800	26	2.57	4369	1000
2036345	2100	26	2.90	5181	1000
2036346	2400	26	3.00	5876	1000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

### Core Construction:

#### Conductors:

- Solid, annealed copper; sizes 19, 22, 24 and 26 AWG

#### Insulation:

- Dual insulation consisting of an inner layer of foamed polyolefin surrounded by a solid polyolefin skin, color-coded in accordance with telephone industry standards

#### Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

#### Core Assembly:

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder
- 1200 pairs and larger are mirror image color code

#### Filling Compound:

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

#### Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

#### Sheath:

##### Aluminum Shield:

- Corrugated, 0.008" aluminum tape applied longitudinally with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

##### Jacket:

- Black, linear low density polyethylene

#### Application(s):

- Intended for duct and direct buried installations where protection against water and moisture entry is required and may also be installed aerially

#### Compliances:

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

#### Packaging:

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available



# Filled Foam Skin ASP Cable

# Spec. 2100

BELL SYSTEM TYPE ANBW (19 AWG) ANMW (24 AWG)  
ANAW (22 AWG) ANTW (26 AWG)

**Core Construction:**

**Conductors:**

- Solid, annealed copper; sizes 19, 22, 24 and 26 AWG

**Insulation:**

- Dual insulation consisting of an inner layer of foamed polyolefin surrounded by a solid polyolefin skin, color-coded in accordance with telephone industry standards

**Twisted Pairs:**

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

**Core Assembly:**

- 25 pairs and less: pairs are assembled together in a single group
- More than 25 pairs: pairs are arranged in groups, each group having a color-coded unit binder
- 1200 pairs and larger are mirror image color code

**Filling Compound:**

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

**Core Wrap:**

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

**ASP Sheath:**

**Aluminum Shield:**

- Corrugated, 0.008" aluminum tape applied longitudinally over the core wrap

**Steel Shield:**

- Corrugated, 0.006" steel tape applied longitudinally over the aluminum tape with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for duct and direct buried installations where protection against water and moisture entry is required and may also be installed aerially

**Compliances:**

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available



**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
6987481	25	19	0.87	454	5000
6987499	50	19	1.15	788	2500
6987507	100	19	1.45	1410	2500
6987515	200	19	2.03	2710	1250
6987523	300	19	2.45	3980	1250
6987572	25	22	0.65	254	5000
6987580	50	22	0.82	431	5000
6987606	100	22	1.06	757	2500
6987622	200	22	1.45	1377	2500
6987630	300	22	1.75	1997	1250
6987648	400	22	1.96	2638	1250
6987655	600	22	2.38	3917	1250
6987663	900	22	2.87	5773	1000
6987671	1200	22	3.32	7549	750
6987705	25	24	0.55	173	5000
6987713	50	24	0.70	295	5000
6987721	100	24	0.90	509	5000
6987739	200	24	1.14	898	2500
6987747	300	24	1.34	1263	2500
6987754	400	24	1.54	1651	2500
6987762	600	24	1.83	2430	1250
6987770	900	24	2.25	3601	1250
6987788	1200	24	2.55	4687	1000
6987796	1500	24	2.82	5792	1000
6987804	1800	24	3.09	6414	1000
6987812	25	26	0.50	139	5000
6987820	50	26	0.61	221	5000
6987838	100	26	0.80	371	5000
6987846	200	26	1.00	646	5000
6987853	300	26	1.19	915	5000
6987861	400	26	1.30	1169	2500
6987879	600	26	1.55	1654	3300
6987887	900	26	1.87	2376	2500
6987895	1200	26	2.15	3124	2000
7507007	1500	26	2.45	3836	1600
7507015	1800	26	2.50	4542	1400
7502958	2100	26	2.74	5350	1000
7507023	2400	26	2.95	6042	1000
7512650	2700	26	3.10	6792	1000
7512668	3000	26	3.32	7415	750

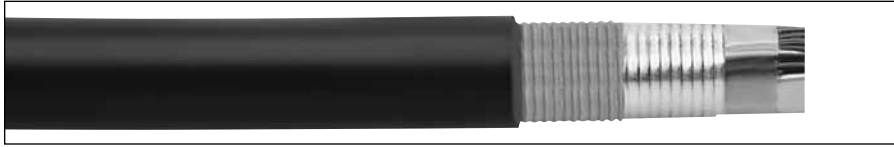
Data subject to change without notice. Contact your Customer Service Representative for latest information. This design is for duct installation only.



# Filled Foam Skin "S" Screened ASP Cable

## Spec. 2109-F

BELL SYSTEM TYPE KNAW (22 AWG)  
KNMW (24 AWG)



### Nominal Cable Data

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7528250	28	22	0.80	321	9000
7528268	54	22	0.95	511	9000
7528276	106	22	1.20	861	6000
7528284	158	22	1.40	1209	4500
7528292	210	22	1.60	1550	3000
7528300	314	22	1.92	2220	3000
7528318	418	22	2.20	3167	2000
7528326	616	22	2.50	4140	1500
2039061	28	24	0.62	222	9000
2039062	54	24	0.75	344	9000
2039063	106	24	1.00	547	6000
2039064	210	24	1.30	1002	4500

Data subject to change without notice. Contact your Customer Service Representative for latest information.

### Core Construction:

#### Conductors:

- Solid, annealed copper; size 22 and 24 AWG

#### Insulation:

- Dual insulation consisting of an inner layer of foamed polyolefin surrounded by a solid polyolefin skin, color-coded in accordance with telephone industry standards

#### Twisted Pairs:

- Insulated conductors are twisted into pairs with varying lay lengths to minimize crosstalk

#### Core Assembly:

- Twisted pairs are assembled into 12, 13 and 25 pair units, or into 50 pair multi-units
- Service pair units of 4 to 18 pairs are assembled for inclusion into the cable

#### "S" Screen:

- Each half of the cable core is separated from the other by use of a 0.004" plastic-coated aluminum screen which divides the core into two electrically isolated compartments

#### Filling Compound:

- The entire core assembly is completely filled with ETPR compound, filling the interstices between the pairs and under the core tape

#### Core Wrap:

- Non-hygroscopic dielectric tape applied longitudinally with an overlap

#### ASP Sheath:

##### Aluminum Shield:

- Corrugated, 0.008" aluminum tape applied longitudinally over the core wrap

##### Steel Shield:

- Corrugated, 0.006" steel tape applied longitudinally over the aluminum tape with an overlap
- The sheath interfaces are flooded with an adhesive water-blocking compound

##### Jacket:

- Black, linear low density polyethylene

#### Application(s):

- Intended for direct buried installation
- Designed for digital two-way T-Carrier signal operation under one cable sheath

#### Compliances:

- Telcordia (Bellcore) Specification GR-421-CORE
- RoHS Compliant (effective 1/1/10)

#### Packaging:

- Standard lengths are shipped on returnable steel reels or on non-returnable wood reels when requested
- Non-standard packaging is also available



# Wire Products

# 3

Wire products are small size distribution wires used as the last link in bringing telecommunication services to the subscriber. These services can incorporate voice, data and video channels.

Wire products are used in constructions from one pair to six pairs. They are made for either self-supported aerial or for buried service applications.

Aerial Services Wires are supported by either an integral steel wire, glass fibers imbedded in the jacket, or by the use of high tensile copper-clad steel conductors.

Buried Service Products are water-resistant and can be made with different shielding materials for mechanical protection during installation and against damage by rodents. All Buried Service Wire is equipped with sequential footage markings.

The temperature range that Telecommunications cable can withstand is:

For storage and operation:  
-45°C to 80°C  
-49°F to 176°F

For installation:  
-30°C to 60°C  
-22°F to 140°F

Multi-pair Aerial and Filled Service Wires have the transmission performance capability of 100Ω, Category 3 Horizontal UTP Cables specified in TIA/EIA-568-C.

Most of our Telecommunications wire constructions contain no halogens (chlorine, fluorine, bromine or iodine), which means they are less toxic and more environmentally friendly. Look for the 17 FREE™ logo.

Index	Page
Glass Supported Drop Wire 2, 3 and 6 Pair Bell System Type and RDUP (RUS) Spec. 4292-4294	19
Drop Wire Bell System Type F Drop and RDUP (RUS) PE-7 Spec. 4295	20
C Rural Wire Bell System Type Spec. 4283	20
Ground Wire Bell System Type Spec. 2621/2622	21
Multiple Pair Aerial Service Wire Bell System Type Spec. 4298	22
Buried Service Wire Gopher-Resistant RDUP (RUS) PE-86 ICEA S-86-634 Spec. 4284	23
Buried Service Wire Aluminum Shield ICEA S-86-634 Spec. 4287	24
Buried Service and Distribution Wire Gopher-Resistant Bell System Type Spec. 3503	25
Buried Service Wire Bronze or CCS Shield Bell System Type C Service Spec. 3502	26

# Glass Supported Drop Wire 2, 3 and 6 Pair

BELL SYSTEM TYPE AND RDUP (RUS)

## Spec. 4292-4294



### Product Construction:

#### Conductors:

- 22 AWG solid annealed copper

#### Insulation:

- Color-coded high density polyethylene

#### Assembly:

- 2, 3 or 6 twisted pairs and rip cord placed parallel between the glass strength members

#### Jacket:

- Black, flame-retardant, weather- and abrasion-resistant PVC compound extruded over core assembly

### Application(s):

- Self-supporting drop wire intended for aerial service connection to the subscriber
- Compatible with "P" Clamp/Wedge type hardware
- Glass strength member is lightweight, easy to install
- No need for support wire grounding
- Not affected by salt air and corrosive environments

### Compliances:

- Telcordia (Bellcore) Specification GR-3163-CORE
- Rural Development Utility Program (RDUP) Bulletin 1753 F-204
- RoHS Compliant (effective 1/1/10)

### Packaging:

- Available in Pull-Pac® cartons (PP), coils (CL), reels (RL) and reelsaver (RS)

### Nominal Cable Data

CATALOG NUMBER	PAIRS	AWG	O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2090021	2	22	0.20 x 0.40	39	500 RS
2090008*	2	22	0.20 x 0.40	39	750 PP
2090012	2	22	0.20 x 0.40	39	750 CL
2090010	2	22	0.20 x 0.40	39	1000 CL
2090053	2	22	0.20 x 0.40	39	3500 RL
2090052*	3	22	0.28 x 0.44	56	600 PP
2090018*	6	22	0.27 x 0.50	79	400 PP
2090014	6	22	0.27 x 0.50	79	400 CL
2090055	6	22	0.27 x 0.50	79	500 CL
2090051	6	22	0.27 x 0.50	79	1000 RL
2090056	6	22	0.27 x 0.50	79	2500 RL
2090013	6	22	0.27 x 0.50	79	3500 RL

Data subject to change without notice. Contact your Customer Service Representative for latest information.  
 \* These Telecommunications wire items have sequential markings.



# Drop Wire

# Spec. 4295

BELL SYSTEM TYPE F DROP AND RDUP (RUS) PE-7

**Product Construction:**

**Conductors:**

- 18½ AWG solid 30% conductivity extra high strength copper-covered steel

**Sheath:**

- Black, flame-, weather- and abrasion-resistant PVC compound extruded over two conductors in a parallel configuration

**Polarity Identification:**

- Polarity ridge on one leg of the web located at 45° above the major axis of the wire cross-section

**Application(s):**

- Self-supporting one pair parallel conductor drop wire intended for aerial service connection to the subscriber

**Compliances:**

- Telcordia (Bellcore) Specification GR-3163-CORE
- Rural Development Utility Program (RDUP) Bulletin 1753 F-204 (RUS PE-7)
- ANSI/ICEA S-89-648-1993
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Available in coils (CL) and Pull-Pac® cartons (PP)



CATALOG NUMBER	PAIRS AWG	O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7021421	1	18½	0.130 x 0.255	24 1000 CL
7021496	1	18½	0.130 x 0.255	24 1000 PP

Data subject to change without notice. Contact your Customer Service Representative for latest information.



# C Rural Wire

# Spec. 4283

BELL SYSTEM TYPE

**Product Construction:**

**Conductors:**

- 14 or 12 AWG solid 30% conductivity extra high strength copper-covered steel

**Sheath:**

- Black, high density polyethylene compound extruded over two conductors in a parallel configuration

**Polarity Identification:**

- Polarity ridge on one minor face of the insulation located at 45° above the major axis of the wire cross-section

**Application(s):**

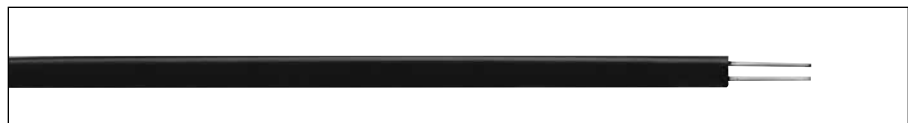
- Self-supporting one pair parallel conductor drop wire intended for aerial distribution in rural exchange areas

**Compliances:**

- Telcordia (Bellcore) Specification TA-TSY-000125
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Available in coils (CL) and reels (RL)



**Nominal Cable Data**

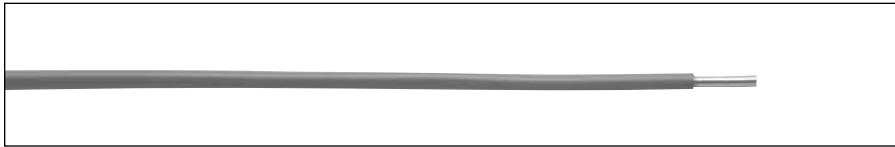
CATALOG NUMBER	PAIRS AWG	O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
6307482	1	14	0.160 x 0.280	35 1000 CL
3114733	1	14	0.160 x 0.280	35 5000 (21") RL
7013881	1	14	0.160 x 0.280	35 5500 (29") RL
2091013	1	12	0.190 x 0.315	58 4000 (21") RL

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# PVC Insulated Ground Wire

BELL SYSTEM TYPE

## Spec. 2621

**Product Construction:****Conductor:**

- Solid annealed copper

**Insulation:**

- Light olive gray, flame-retardant, weather- and abrasion-resistant PVC compound extruded over the conductor

**Application(s):**

- Single conductor for connection to ground for customer premises or network equipment and station protectors

**Compliances:**

- Telcordia (Bellcore) Specification TA-TSY-000120
- UL Listed VW-1
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Available in coils (CL) and coils in cartons (CL/CTN)

**Nominal Cable Data**

CATALOG NUMBER	AWG	CABLE CODE	NOM. O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
7515307	6	V-61-C	0.22	102	600 CL
7515265	10	V-101-C	0.15	39	200 CL/CTN

Data subject to change without notice. Contact your Customer Service Representative for latest information.

Listed Type  
MISC.Passes UL  
VW-1S Flame Test  
Passes UL VW-1  
Flame Test  
Underwriters Laboratories Inc.

# Bare Ground Wire

BELL SYSTEM TYPE

## Spec. 2622

**Product Construction:****Conductor:**

- Solid annealed copper

**Application(s):**

- Single conductor for grounding aerial cables and pole-mounted equipment. Proper telephone co. grounding practices must be followed

**Compliances:**

- Telcordia (Bellcore) Specification TA-TSY-000120
- ASTM B-3
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Available in coils (CL) and coils in cartons (CL/CTN)

**Nominal Cable Data**

CATALOG NUMBER	AWG	CABLE CODE	NOM. O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2091090	6	B-6	0.16	86	50 CL/CTN
2091093	6	B-6	0.16	86	600 CL

Data subject to change without notice. Contact your Customer Service Representative for latest information.





# Multiple Pair Aerial Service Wire

# Spec. 4298

BELL SYSTEM TYPE

**Product Construction:**

**Conductors:**

- 22 AWG solid annealed copper

**Insulation:**

- Color-coded high density polyethylene

**Jacket:**

- The pairs and a .083" diameter galvanized steel messenger are enclosed in a black flame-retardant, weather- and abrasion-resistant PVC jacket in a Figure 8 configuration

**Application(s):**

- Provides multiple line telecommunication service connection to the subscriber

**Compliances:**

- Telcordia (Bellcore) Specification GR-3163-CORE
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Available in coils (CL) and reels (RL)



**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG	O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2091021	6	22	0.380 x 0.615	82 400 CL
2091015	6	22	0.380 x 0.615	82 500 RL
2091016	6	22	0.380 x 0.615	82 3500 RL

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Double Jacketed Buried Service Wire

# Spec. 4284

GOPHER-RESISTANT RDUP (RUS) PE-86  
ICEA S-86-634



**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. INCHES	WEIGHT LBS/MFT	STANDARD LENGTH (FT)
2095061	2	22	0.32	56	2500
2095002	2	22	0.32	56	5000
2095151	3	22	0.34	66	1000
2095064	3	22	0.34	66	2500
2095016	3	22	0.34	66	5000
2095150	6	22	0.40	95	1000
2095065	6	22	0.40	95	2500
2095063	6	22	0.40	95	5000
2095067	3	24	0.31	54	2500
2095066	3	24	0.31	54	5000
2095068	6	24	0.36	74	2500
2095069	6	24	0.36	74	5000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

**Product Construction:**

**Conductors:**

- Solid annealed copper

**Insulation:**

- High density polyethylene

**Pairing:**

- Varying pair lays

**Core Filling:**

- 80°C filling and flooding compounds

**Inner Jacket:**

- Linear low density polyethylene

**Shield:**

- 0.005" corrugated copper-clad alloy steel tape

**Rip Cord:**

- Under the outer jacket

**Outer Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for use in buried service application to the subscriber loops
- The shielding material provides resistance to gopher damage

**Compliances:**

- ICEA S-86-634
- RDUP 7 CFR 1755.860 (RUS PE-86) for 2 and 3 pair constructions, formerly PE-54 CCS
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Non-returnable plywood reels in lengths as shown above



# Double Jacketed Buried Service Wire

## Spec. 4287

WITH ALUMINUM SHIELD ICEA S-86-634

**Product Construction:**

**Conductors:**

- Solid annealed copper

**Insulation:**

- High density polyethylene

**Pairing:**

- Varying pair lays

**Core Filling:**

- 80°C filling and flooding compounds

**Inner Jacket:**

- Linear low density polyethylene

**Shield:**

- Polymer-coated 0.008" aluminum tape

**Rip Cord:**

- Under the outer jacket

**Outer Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for use in buried service application to the subscriber loops

**Compliances:**

- ICEA S-86-634
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Non-returnable plywood reels in lengths as shown above



**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2095138	2	22	0.33	51	1000
2095125	2	22	0.33	51	2500
2095126	2	22	0.33	51	5000
2095146	3	22	0.35	62	1000
2095127	3	22	0.35	62	2500
2095128	3	22	0.35	62	5000
2095137	6	22	0.41	88	1000
2095129	6	22	0.41	88	2500
2095130	6	22	0.41	88	5000
2095131	2	24	0.30	42	2500
2095132	2	24	0.30	42	5000
2095133	3	24	0.32	54	2500
2095134	3	24	0.32	54	5000
2095135	6	24	0.33	68	2500
2095136	6	24	0.33	68	5000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

**Double Jacketed Buried Service and Distribution Wire Spec. 3503**

BELL SYSTEM TYPE—GOPHER-RESISTANT

**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2095102	3	19	0.42	99	5000
2095106	6	19	0.51	152	5000
2095089	3	22	0.34	67	1200
2095090	3	22	0.34	67	3000
2095091	3	22	0.34	67	5000
2095094	6	22	0.40	95	800
2095095	6	22	0.40	95	3000
2095096	6	22	0.40	95	5000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

**Product Construction:****Conductors:**

- 22 or 19 AWG solid annealed copper

**Insulation:**

- High density polyethylene

**Pairing:**

- Varying pair lays

**Core Filling:**

- 80°C filling compound

**Inner Jacket:**

- Linear low density polyethylene

**Shield:**

- 0.005" corrugated copper-clad alloy steel tape

**Rip Cords:**

- Under each jacket

**Outer Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for use in buried service application to the subscriber loops
- The shielding material provides resistance to gopher damage

**Compliances:**

- Telcordia (Bellcore) Specification GR-3163-CORE
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Non-returnable plywood reels in lengths as shown above

# Single Jacketed Buried Service Wire

# Spec. 3502

## BELL SYSTEM TYPE C SERVICE

**Product Construction:****Conductors:**

- 22 AWG solid annealed copper

**Insulation:**

- High density polyethylene

**Pairing:**

- Varying pair lays

**Core Filling:**

- 80°C filling and flooding compounds

**Core Wrap:**

- Polyester tape

**Shield:**

- 0.004" corrugated commercial bronze or copper-clad steel tape

**Rip Cord:**

- Under the jacket

**Jacket:**

- Black, linear low density polyethylene

**Application(s):**

- Intended for use in buried service application to the subscriber loops

**Compliances:**

- Telcordia (Bellcore) Specification GR-3163-CORE
- RoHS Compliant (effective 1/1/10)

**Packaging:**

- Non-returnable plywood reels in lengths as shown above

**Nominal Cable Data**

CATALOG NUMBER	PAIRS AWG		O.D. (INCHES)	WEIGHT (LBS/MFT)	STANDARD LENGTH (FT)
2095160	3	22	0.30	55	1200
2095084	3	22	0.30	55	3000
2095086	3	22	0.30	55	5000
2095161	6	22	0.37	77	800
2095098	6	22	0.37	77	3000
2095099	6	22	0.37	77	5000

Data subject to change without notice. Contact your Customer Service Representative for latest information.

# Technical Information

# 4

The complexity of today's Outside Voice and Data transmissions has generated an increasing demand for more technical information. In the current business world, customer service representatives, engineers, distributors and end-users do not have time to search for answers to their technical questions.

To this end, General Cable is including a limited technical section to help simplify these decisions and enable you to more expeditiously locate the products you need and answer product-specific questions.

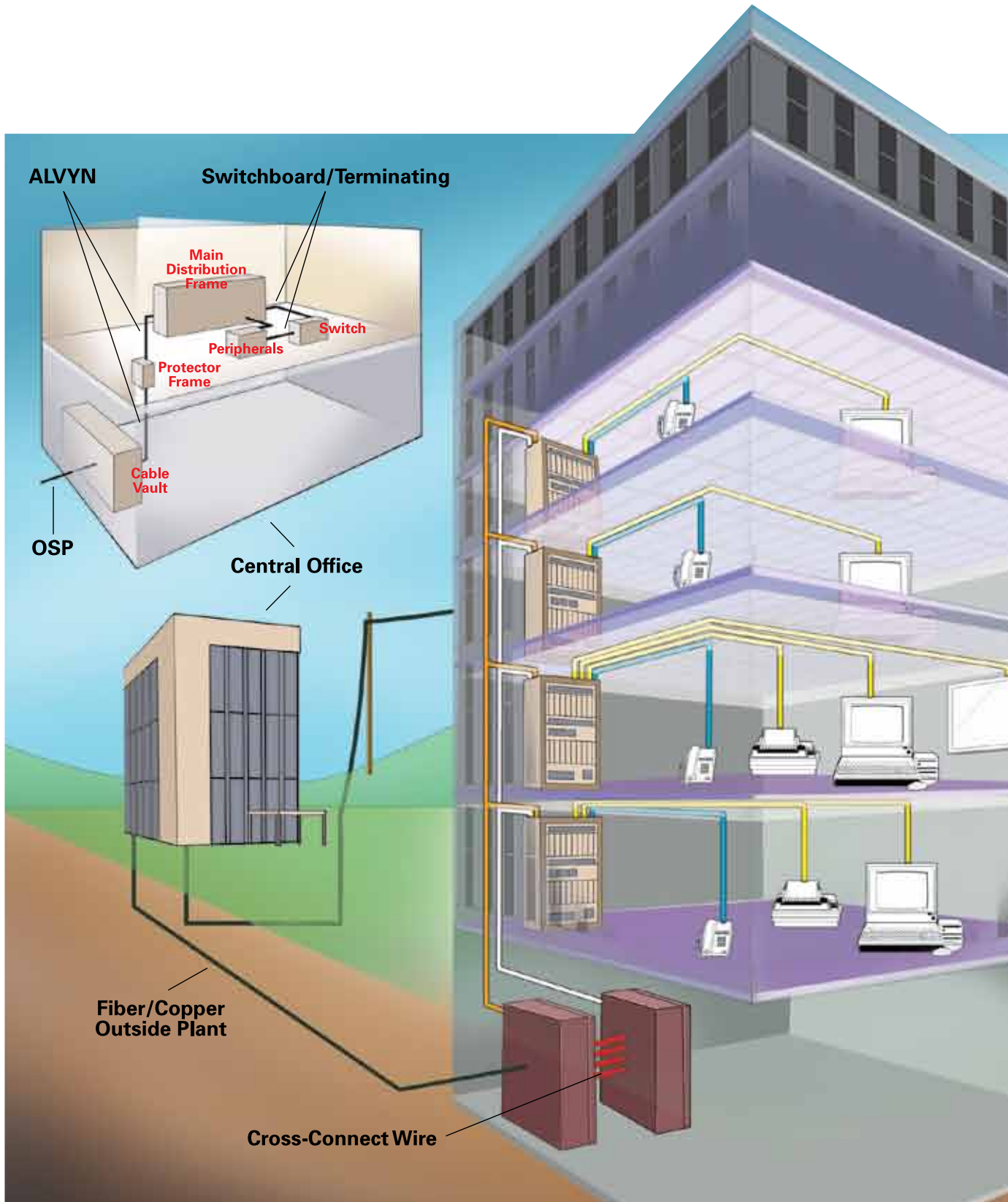
Reel size and weight charts based on O.D. are available upon request from your Customer Service Representative.

Sag and Tension tables are available on the Telecommunications Web page under "Resources/Services."

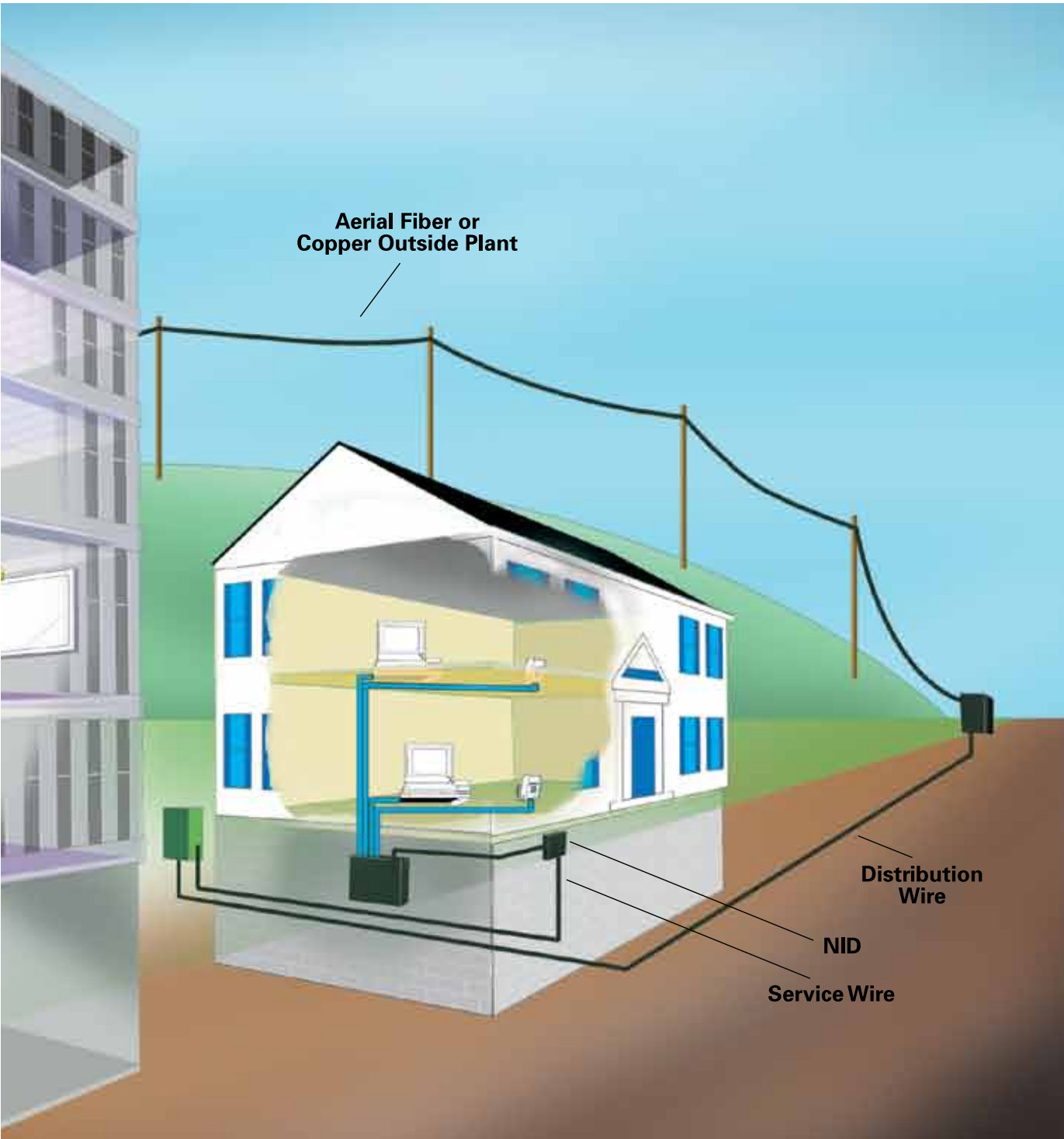
For additional technical information, please contact your sales representative, our customer service department or visit [www.generalcable.com](http://www.generalcable.com). Select "Telecommunications" under Products, then select "Technical Information."

Index	Page
Local Distribution Network	28-29
Color Code Chart	30-31
Glossary	32-34
Part Number Index	35-36

# Local Distribution Network



# Local Distribution Network





# Color Code Chart

## PLASTIC INSULATED COMMUNICATION CABLES

### 25 PAIR UNIT COLORS

PAIR NUMBER	RING COLOR	TIP COLOR	PAIR NUMBER	RING COLOR	TIP COLOR
1	Blue	White	13	Green	Black
2	Orange	White	14	Brown	Black
3	Green	White	15	Slate	Black
4	Brown	White	16	Blue	Yellow
5	Slate	White	17	Orange	Yellow
6	Blue	Red	18	Green	Yellow
7	Orange	Red	19	Brown	Yellow
8	Green	Red	20	Slate	Yellow
9	Brown	Red	21	Blue	Violet
10	Slate	Red	22	Orange	Violet
11	Blue	Black	23	Green	Violet
12	Orange	Black	24	Brown	Violet
			25	Slate	Violet

### UNIT BINDER COLORS FOR FULL COLOR CODE

GROUP NUMBER	BINDER COLORS	PAIR RANGE
1	White - Blue	1 - 25
2	White - Orange	26 - 50
3	White - Green	51 - 75
4	White - Brown	76 - 100
5	White - Slate	101 - 125
6	Red - Blue	126 - 150
7	Red - Orange	151 - 175
8	Red - Green	176 - 200
9	Red - Brown	201 - 225
10	Red - Slate	226 - 250
11	Black - Blue	251 - 275
12	Black - Orange	276 - 300
13	Black - Green	301 - 325
14	Black - Brown	326 - 350
15	Black - Slate	351 - 375
16	Yellow - Blue	376 - 400
17	Yellow - Orange	401 - 425
18	Yellow - Green	426 - 450
19	Yellow - Brown	451 - 475
20	Yellow - Slate	476 - 500
21	Violet - Blue	501 - 525
22	Violet - Orange	526 - 550
23	Violet - Green	551 - 575
24	Violet - Brown	576 - 600

### UNIT BINDER COLORS FOR MIRROR IMAGE 100 PAIR SUPER-UNIT

GROUP NUMBER	BINDER COLORS	PAIR RANGE
1	Blue	1 - 25
2	Orange	26 - 50
3	Green	51 - 75
4	Brown	76 - 100

### 300 PAIR SUPER-UNIT

GROUP NUMBER	BINDER COLORS	PAIR RANGE
1	White - Blue	1 - 25
2	White - Orange	26 - 50
3	White - Green	51 - 75
4	White - Brown	76 - 100
5	White - Slate	101 - 125
6	Red - Blue	126 - 150
7	Red - Orange	151 - 175
8	Red - Green	176 - 200
9	Red - Brown	201 - 225
10	Red - Slate	226 - 250
11	Black - Blue	251 - 275
12	Black - Orange	276 - 300

### SUPER-UNIT BINDER COLORS FOR MIRROR IMAGE (See drawings on the next page)

### SPARE PAIRS FOR MIRROR IMAGE

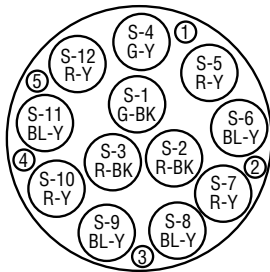
PAIR NUMBER	PAIR COLORS
1	White - Red
2	White - Black
3	White - Yellow
4	White - Violet
5	Red - Black
6	Red - Yellow
7	Red - Violet
8	Black - Yellow
9	Black - Violet
10	Yellow - Violet
11	Blue - Orange
12	Blue - Green
13	Blue - Brown
14	Blue - Slate
15	Orange - Green

### SUPER-UNIT BINDER COLORS FOR FULL COLOR CODE

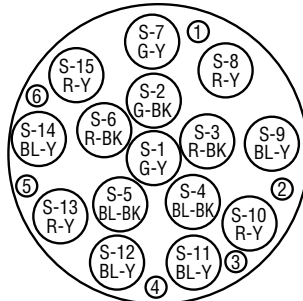
S.U. BINDER COLOR	PAIR RANGE
White	1 - 600
Red	601 - 1200
Black	1201 - 1800
Yellow	1800 - 2400

# Color Code Chart

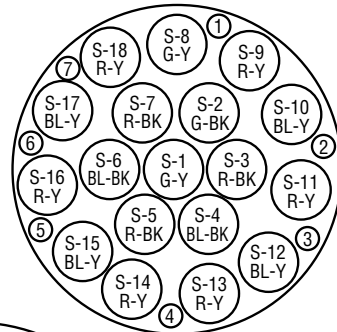
## SUPER-UNIT BINDER COLORS FOR MIRROR IMAGE



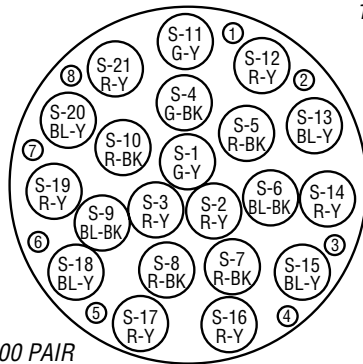
1200 PAIR



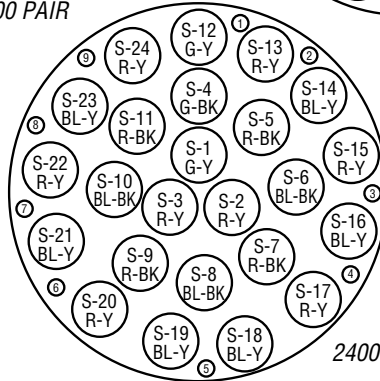
1500 PAIR



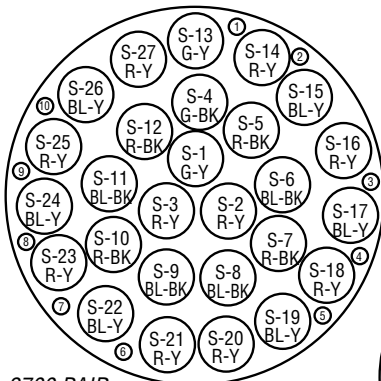
1800 PAIR



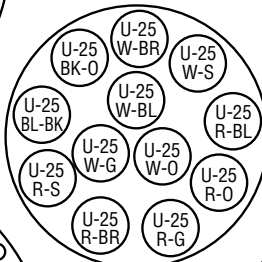
2100 PAIR



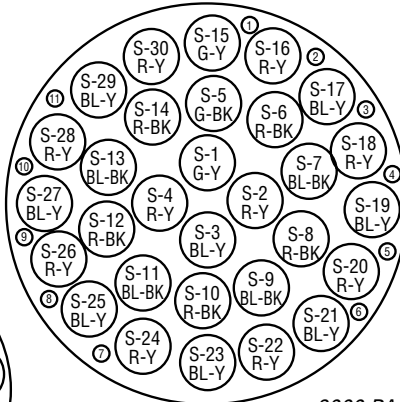
2400 PAIR



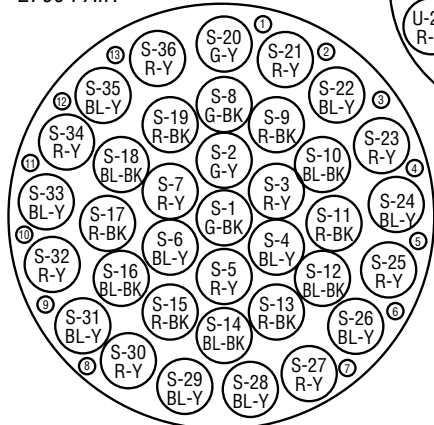
2700 PAIR



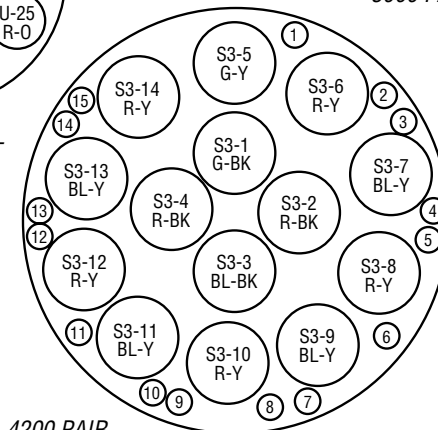
300 PAIR  
SUPER-UNIT



3000 PAIR



3600 PAIR



4200 PAIR

# Glossary

**Access Line:** A local access connection (fixed or wireless) between a customer's premises and a carrier's central office switch.

**Aerial Cable:** Cable suspended in the air on poles or other overhead structures.

**Air Core:** A telephone outside plant cable construction for aerial and duct installation in which the insulated conductors in the cable core are surrounded by air.

**Alloy:** A combination of two or more metals to form a new or different metal, having specific or desirable qualities.

**ALPETH:** Telephone cable sheath employing a corrugated aluminum shield and an outer polyethylene jacket.

**American Wire Gauge: (AWG)**

A standard used in the determination of the physical size of a conductor determined by its circular mil area. AWG is used in the U.S. to designate the size of wire and conductors. The gauge numbers are retrogressive—the larger the gauge number the smaller the wire.

**Analog Signal:** A signal in which the intelligence is represented by continuously varying quantities.

**Anneal:** The act of softening a metal, such as copper, by means of heat to render it less brittle.

**Armor:** Mechanical protection usually accomplished by a metallic layer of tape, braid or served wires. Normally found only over the outer sheath.

**ASP:** A cable sheath consisting of a corrugated aluminum (A) shield, corrugated steel (S) shield, flooding compound and an outer polyethylene (P) jacket.

**ASTM:** Abbreviation of the American Society for Testing and Materials, a non-profit industry-wide organization which publishes standards, methods of test, recommended practices, definitions and other related material.

**Attenuation:** Power loss in an electrical system. In cables, generally expressed in dB per unit length, usually 1,000 feet.

**Bandmarking:** A circumferential color band applied to an insulated conductor at regular intervals for identification.

**Bandwidth:** The frequency range of electrical signals transmitted.

**Binder:** Usually spirally wrapped tape or thread used for holding assembled cable components in place.

**Buried Cable:** A cable installed directly in the earth without use of underground conduit. Also called direct buried cable.

**Cable:** Insulated conductors or twisted group of insulated conductors used for the transmission of electrical energy.

**Cabling:** The act of twisting together two or more insulated components by machine to form a cable.

**Capacitance:** The ratio of the electrostatic charge on a conductor to a potential difference between the conductors required to maintain that charge.

**Carrier:** A telco that owns and operates its own network and provides transmission services to other service providers through its facilities.

**Central Office:** A building housing the telephone switching apparatus.

**Cold Bend:** A laboratory test procedure whereby a sample of wire or cable is wound around a mandrel of a specified size at a specified temperature for a given number of turns at a given rate of speed and examined for defects.

**Color Code:** A color system for circuit identification by use of solid colors, tracers, braids, surface marking, etc.

**Compound:** A term used to designate an insulating or jacketing material made by mixing two or more ingredients. To Compound: the combining of two or more different materials to make one material.

**Conductivity:** A term used in describing the capability of a material to carry an electrical charge. Usually expressed as a percentage of copper conductivity—copper being one hundred (100%) percent. Conductivity is expressed for a standard configuration of conductor.

**Conductor:** Any material capable of easily carrying an electrical charge.

**Conduit:** A tube or trough for protecting electrical wires and cables. It may be a rigid or flexible tube into which insulated electrical wires are pulled.

**Core:** In cables, a component or assembly of components over which additional components (shield, sheath, etc.) are applied.

**Crosstalk:** Signal interference between nearby conductors caused by the pickup of stray energy.

**Decibel (dB):** A standard of unit based on a logarithmic scale for expressing transmission gain or loss and relative power levels.

**Dielectric:** Any insulating medium which intervenes between two conductors and permits electrostatic attraction and repulsion to take place across it.

**Dielectric Constant:** The ratio of the capacitance of an insulated wire with that of the same wire uninsulated in air.

**Dielectric Strength:** The voltage which an insulation can withstand before breakdown occurs. Usually expressed as a voltage gradient (such as volts per mil).

**Dielectric Test:** A test in which a voltage higher than the rated voltage is applied for a specified time to determine the adequacy of the insulation under normal conditions.

**Digital Signal:** A signal in which the data is represented by a series of discrete steps or pulses.

**Digital Subscriber Line (DSL):** A technology used to increase the capacity of copper telephone lines.

**Distribution Cable:** The cable portion of the local outside plant network between the feeder cable and the subscriber.

**Drain Wire:** An uninsulated wire in a cable used to facilitate shield connection.

**Drawing:** In the manufacture of wire, pulling the metal through a die or series of dies in order to reduce the diameter to a specified size.

**Drop Wire:** A wire designed for use as service drops from aerial distribution terminals to subscriber station protectors.

**Duct:** An underground or overhead tube for carrying electrical conductors.

**Elongation:** The fractional increase in length of a material stressed in tension.

**Embossing:** A means of marker identification by means of thermal indentation leaving raised lettering on a cable's sheath material.

**Ethernet:** A local area network (LAN) which uses the CSMA/CD (Carrier Sense Multiple Access with Collision Detection) access method on a bus topography.

**Extrusion:** Method of continuously forcing plastic, rubber, or elastomer material through an orifice to apply insulation or jacketing over a conductor or cable core.

**Figure 8 Cable:** An aerial cable configuration in which the conductors and steel strand, which supports the cable, are integrally jacketed. A cross-section of the finished cable approximates the figure "eight".

# Glossary

**Filled Cable:** A telephone outside plant cable construction for direct buried installation in which the cable core is filled with a material that will prevent moisture from entering or passing through the cable.

**Flame Resistance:** Measure of a material's ability not to propagate flame once the source of heat is removed.

**Flammability:** Measure of a material's ability to support combustion.

**Foam Skin Cable:** A cable utilizing a foamed polyolefin inner layer covered by a solid polyolefin skin as the conductor insulation.

**Frequency:** The number of cycles, now expressed as hertz, by an alternating current in one second. The hertz is equivalent to the older unit cycles per second.

**Gauge:** A term used to denote the physical size of a wire.

**Ground:** 1) An electrical term meaning to connect to the earth or other large conducting body to serve as an earth thus making a complete electrical circuit; 2) A wire intended to be used for grounding (also called grounding conductor).

**Helical Stripe:** A continuous, colored, spiral stripe applied over the outer perimeter of an insulated conductor for circuit identification purposes.

**Hygroscopic:** Capable of absorbing moisture from the air.

**Impact Strength:** A test designed to ascertain the abuse a cable configuration can absorb, without physical or electrical breakdown, by impacting with a given weight, dropped from a given height, in a controlled environment.

**Impedance:** The total opposition that a circuit offers to the flow of alternating current at a particular frequency. It is a combination of resistance R and reactance X, measured in ohms.

**Inductance:** The property of a circuit or circuit element that opposes a change in current flow, thus causing current changes to lag behind voltage changes. It is measured in henrys.

**Insulated Wire:** A conductor of electricity covered with a non-conducting material.

**Insulation:** A non-conductive material usually surrounding or separating two conductive materials. Often called the dielectric in a radio frequency cable.

**Insulation Resistance:** That property of an insulating material which resists electrical current flow through the insulating material when a potential difference is applied.

**Integrated Service Digital Network (ISDN):** A digital data communications network providing full integration of data, voice and video.

**Interconnect Companies:** Companies which sell, install and maintain telephone systems for end users.

**Interexchange Carrier (IXC):** A long-distance telephone carrier authorized to carry transmissions between local access and transport areas.

**Internet Protocol (IP):** The set of rules that defines how information is packaged and addressed for delivery across the Internet.

**Internet Service Provider (ISP):** A company that offers consumers and businesses access to the internet and other related services.

**Interstices:** In cable construction, the spaces, valleys or voids between or around the cable's components.

**Jacket:** A material covering over a wire insulation or an assembly of components. An overall jacket on a complex cable grouping. Also called a sheath.

**Lay:** A term used in cable manufacturing to denote the distance of advance of one member of a group of spirally twisted members, in one turn, measured axially.

**Local Area Network (LAN):** A network spanning a limited geographical area, providing data communications between computers and peripherals, and switching equipment.

**Local Exchange Carrier (LEC):** A telephone company that provides the dial tone to the end consumer. Incumbent local exchange carriers (ILECs) are the Bell Operating companies and smaller independent phone companies that originally provided local phone services to specific geographic communities on a regulated, monopoly basis. CLECs are competitive local carriers created out of the Telecommunications Act of 1996.

**Local Number Portability (LNP):** The practice of letting a customer switch service from one local company to another without having to change their telephone number.

**Longitudinal Wrap:** A tape applied longitudinally with the axis of the core being covered, as opposed to a helical, or spiral, tape wrapped core.

**Marker Thread:** A colored thread laid parallel and adjacent to the strands of an insulated conductor which identifies the cable manufacturer. It may also denote a temperature rating or the specification to which the cable is made.

**Mil:** 1/1000 of an inch.

**Moisture Resistance:** The ability of a material to resist absorbing moisture from the air or when immersed in water.

**Mutual Capacitance (Cm):** The capacitance between two conductors when all other conductors, including the shield, are short circuited to ground.

**National Electrical Code (NEC):** A consensus standard published by the National Fire Protection Association (NFPA) and incorporated in OSHA regulations.

**Network:** 1) Series of points connected by communications channels; 2) Network of telephone lines normally used for dialed telephone calls; 3) Network of communications channels connected to the use of one customer. For purposes of data communications applications, components in a common geographical area, served by a common computer, or performing a common function may be defined as one network. Also defined as one or more interconnected data links.

**Ohm:** A unit of electrical resistance, the resistance of a circuit in which a potential difference of one volt produces a current of one ampere.

**Outside Plant (OSP):** All cables and wires extending outward from the network protectors on the main distribution frame to connect the terminal equipment to the Outside Plant.

**Pair:** Two wires forming a single circuit, held together by twisting, binding, or a common jacket.

**Parallel:** A construction in which two or more conductors are laid parallel and surrounded and separated by an insulating material.

**PASP:** A cable sheath consisting of an inner polyethylene (P) jacket, corrugated aluminum (A) shield, corrugated steel (S) and an outer polyethylene (P) jacket.

**PIC:** An abbreviation for Plastic Insulated Conductor: conductors covered with an extruded coating of plastic.

**Plasticizer:** A chemical agent added in compounding plastics to make them softer and more flexible.

# Glossary

**Polyethylene:** A family of insulating materials derived from polymerization of ethylene gas. They are basically pure hydrocarbon resins with excellent dielectric properties.

**Polyvinyl Chloride (PVC):** A general purpose thermoplastic widely used for wire and cable insulations and jackets.

**Pressurization:** The use of pressurized gas or dry air inside Air Core cables to prevent the entry of water at faulty splices or minor sheath cracks. It can also trigger an alarm when major faults occur and can assist in locating the damaged areas.

**Pulling Eye:** A device which may be fastened to the conductor(s) or jacket of a cable or formed by or fastened to the wire armor and to which a hook or rope may be directly attached in order to pull the cable through a duct.

**Put-Up:** Refers to the packaging of wire and cable. The term itself refers to the quantity of product that is ready to be stored or shipped.

**Regional Bell Operating Company (RBOC):** A holding company formed by the divestiture of AT&T to provide both regulated and non-regulated telephone services.

**Resistance:** The property of an electric circuit which determines for a given current the rate at which electric energy is converted into heat and has a value such that the current squared multiplied by the resistance gives the power converted.

**Restriction on Hazardous Substances (RoHS):** The European Commission's Directive 2002/95/EC adopted January 27, 2003, also known as "RoHS," which restricts the use of certain hazardous substances in electrical and electronic equipment.

**Ring Banding:** See Bandmarking.

**Rip Cord:** A cord placed directly under the jacket of a cable in order to facilitate stripping (removal) of the jacket.

**Screened Cables:** A cable core design where an aluminum shield divides the cable core into two electrically separate compartments.

**Sheath:** The combination of a metallic shield and an extruded plastic jacket applied as the outermost covering on a cable. In the absence of a shield, the extruded jacket may be designated as a sheath.

**Shield:** A metallic layer placed around an insulated conductor or group of conductors to prevent electrostatic or electromagnetic interference between the enclosed wires and external fields. This shield can be braided or served wires, foil wrap, foil backed tape, a metallic tube, or conductive vinyl or rubber. When a metallic braid of tinned or bare copper is applied over the insulated conductor, the shielding effectiveness is in proportion to the amount of coverage, usually expressed as a percentage.

**Spark Test:** A test designed to locate pinholes in a wire's insulation by application of an electrical potential across the material for a very short period of time while the wire is drawn through an electrode field with one end of the wire grounded.

**STALPETH:** A cable sheath consisting of a corrugated steel (ST) shield applied over a corrugated aluminum (AL) shield and an outer polyethylene (PETH) jacket.

**Stranding:** The manufacturing process by which cable components are assembled around a central piece, forming a round core.

**Tank Test:** A voltage dielectric test in which the wire or cable test sample is submerged in water and voltage is applied between the conductor and water as ground.

**Temperature Rating:** The maximum temperature at which the insulating material may be used in continuous operation without loss of its basic properties.

**Tensile Strength:** A term denoting the greatest longitudinal tensile stress a substance can bear without tearing apart or rupturing.

**Thermoplastic:** Material that will soften and distort from its formed shape by heating above a critical temperature peculiar to the material.

**Tinned Wire:** Copper wire that has been coated with a layer of tin or solder to simplify soldering.

**Tracer Stripe:** When more than one color coding stripe is required, the first, or widest, stripe is the base stripe; the other, usually narrower stripes, being termed tracer stripes.

**Twisted Pair:** Two insulated conductors spiraled together.

**UL:** Abbreviation for Underwriters Laboratories, a non-profit independent organization, which operates a listing service for electrical and electronic materials and equipment.

## Unbundled Network Element Provider

**(UNE-P):** The wholesale purchase of all network elements from the RBOC, with the CLEC retaining the responsibility for integrating the elements together in order to complete connections and provide service.

**Voice Frequency:** Any of the frequencies that are audible to the human ear. For telephone transmission the range is generally from 300 to 3,400 Hz.

**Volt:** The standard unit of electromotive force or electrical pressure. One volt is the amount of pressure that will cause one ampere of current to flow through one ohm of resistance.

**Voltage Rating:** The highest voltage that may be continuously applied to a wire in conformance with standards or specifications.

**VW-1:** A test used by Underwriters Laboratories to classify wires and cables with regard to their resistance to burning. (Formerly designated as FR-1.)

**Wall Thickness:** A term expressing the thickness of a layer of applied insulation or jacket.

**Wide Area Network (WAN):** A network spanning a broad geographical area, providing data communications between computers and peripherals, and switching equipment.

**Wire:** 1) A single piece of slender, flexible metal, ranging in approximate size from a piece that is difficult to bend by hand to a fine thread. 2) Several wires as in (1) twisted together.

# Part Number Index

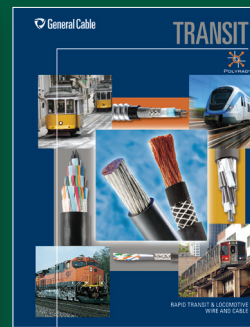
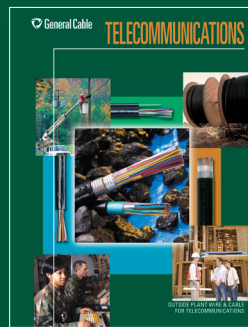
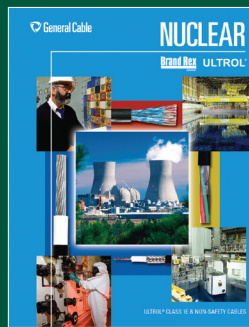
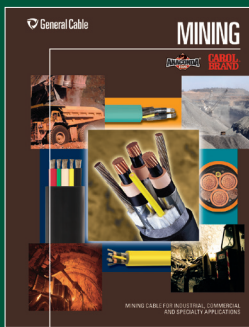
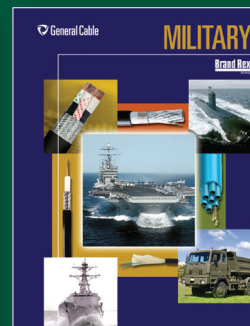
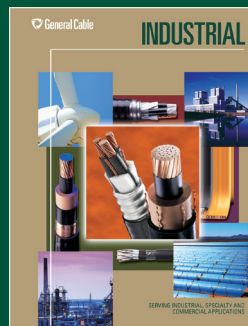
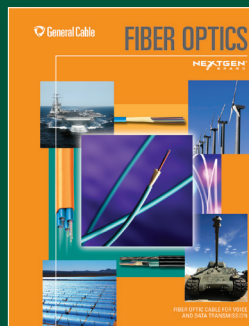
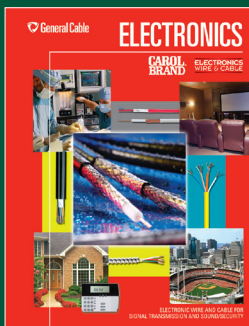
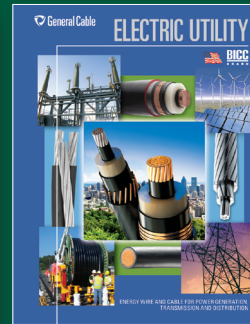
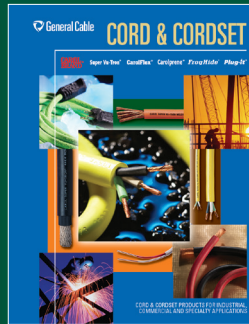
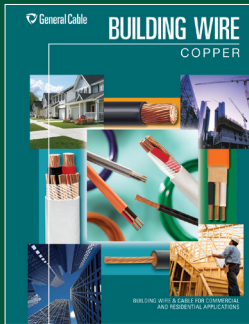
CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE
2010078.....	8	2036334.....	15	2095065.....	23	6937817.....	4	6987762.....	16
2010079.....	8	2036335.....	15	2095066.....	23	6937833.....	4	6987770.....	16
2010080.....	8	2036336.....	15	2095067.....	23	6937841.....	4	6987788.....	16
2010081.....	8	2036337.....	15	2095068.....	23	6937858.....	4	6987796.....	16
2010083.....	8	2036338.....	15	2095069.....	23	6937866.....	4	6987804.....	16
2010084.....	8	2036339.....	15	2095084.....	26	6964787.....	4	6987812.....	16
2012000.....	3	2036340.....	15	2095086.....	26	6964795.....	4	6987820.....	16
2012001.....	3	2036341.....	15	2095089.....	25	6964803.....	4	6987838.....	16
2012004.....	3	2036342.....	15	2095090.....	25	6964811.....	4	6987846.....	16
2012005.....	3	2036343.....	15	2095091.....	25	6968762.....	4	6987853.....	16
2012006.....	3	2036344.....	15	2095094.....	25	6968770.....	4	6987861.....	16
2012010.....	3	2036345.....	15	2095095.....	25	6983381.....	4	6987879.....	16
2012011.....	3	2036346.....	15	2095096.....	25	6987218.....	4	6987887.....	16
2012015.....	3	2039061.....	17	2095098.....	26	6987275.....	4	6987895.....	16
2012016.....	3	2039062.....	17	2095099.....	26	6987374.....	8	7013881.....	20
2012020.....	3	2039063.....	17	2095102.....	25	6987382.....	8	7021421.....	20
2036300.....	15	2039064.....	17	2095106.....	25	6987390.....	8	7021496.....	20
2036301.....	15	2090008.....	19	2095125.....	24	6987408.....	8	7071608.....	14
2036302.....	15	2090010.....	19	2095126.....	24	6987416.....	8	7071616.....	14
2036303.....	15	2090012.....	19	2095127.....	24	6987424.....	8	7502008.....	8
2036307.....	15	2090013.....	19	2095128.....	24	6987481.....	16	7502024.....	7
2036308.....	15	2090014.....	19	2095129.....	24	6987499.....	16	7502032.....	7
2036309.....	15	2090018.....	19	2095130.....	24	6987507.....	16	7502040.....	7
2036310.....	15	2090021.....	19	2095131.....	24	6987515.....	16	7502057.....	7
2036311.....	15	2090051.....	19	2095132.....	24	6987523.....	16	7502065.....	7
2036312.....	15	2090052.....	19	2095133.....	24	6987572.....	16	7502073.....	7
2036313.....	15	2090053.....	19	2095134.....	24	6987580.....	16	7502081.....	7
2036314.....	15	2090055.....	19	2095135.....	24	6987606.....	16	7502099.....	7
2036320.....	15	2090056.....	19	2095136.....	24	6987622.....	16	7502107.....	8
2036321.....	15	2091013.....	20	2095137.....	24	6987630.....	16	7502180.....	7
2036322.....	15	2091015.....	22	2095138.....	24	6987648.....	16	7502198.....	7
2036323.....	15	2091016.....	22	2095146.....	24	6987655.....	16	7502214.....	7
2036324.....	15	2091021.....	22	2095150.....	23	6987663.....	16	7502230.....	7
2036325.....	15	2091090.....	21	2095151.....	23	6987671.....	16	7502248.....	7
2036326.....	15	2091093.....	21	2095160.....	26	6987705.....	16	7502958.....	16
2036327.....	15	2095002.....	23	2095161.....	26	6987713.....	16	7503485.....	4
2036328.....	15	2095016.....	23	3114733.....	20	6987721.....	16	7503543.....	7
2036329.....	15	2095061.....	23	6307482.....	20	6987739.....	16	7503550.....	7
2036330.....	15	2095063.....	23	6937064.....	4	6987747.....	16	7503576.....	7
2036331.....	15	2095064.....	23	6937767.....	4	6987754.....	16	7503592.....	7

# Part Number Index

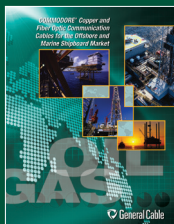
CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE	CATALOG NUMBER	PAGE
7503600.....	7	7512650.....	16	7524622.....	10	7525785.....	13	7527161.....	2
7503618.....	7	7512668.....	16	7524648.....	10	7525793.....	13	7527187.....	2
7503626.....	7	7513252.....	8	7524655.....	10	7525819.....	13	7527195.....	2
7503634.....	7	7513351.....	8	7524671.....	10	7525835.....	13	7527203.....	2
7503659.....	7	7515265.....	21	7524697.....	10	7525843.....	13	7527757.....	2
7503667.....	7	7515307.....	21	7524705.....	10	7525850.....	13	7527765.....	2
7503683.....	7	7516438.....	8	7524713.....	10	7525868.....	13	7527781.....	2
7503709.....	7	7516461.....	5	7524721.....	10	7525876.....	13	7528003.....	12
7503717.....	7	7516479.....	5	7525058.....	11	7526551.....	14	7528011.....	12
7503725.....	7	7516487.....	5	7525066.....	11	7526569.....	14	7528037.....	12
7503816.....	7	7516495.....	5	7525074.....	11	7526577.....	14	7528045.....	12
7503824.....	7	7517261.....	5	7525082.....	11	7526585.....	14	7528060.....	12
7503832.....	7	7517279.....	5	7525090.....	11	7526601.....	14	7528102.....	12
7503840.....	7	7517287.....	5	7525116.....	11	7526668.....	14	7528110.....	12
7506777.....	4	7517303.....	5	7525124.....	11	7526684.....	14	7528136.....	12
7506785.....	4	7517329.....	5	7525140.....	11	7526692.....	14	7528144.....	12
7506876.....	4	7517394.....	6	7525157.....	11	7526718.....	14	7528169.....	12
7506884.....	4	7517410.....	6	7525173.....	11	7526734.....	14	7528185.....	12
7506892.....	4	7517428.....	6	7525199.....	11	7526742.....	14	7528193.....	12
7506900.....	4	7517444.....	6	7525207.....	11	7526759.....	14	7528201.....	12
7506918.....	4	7517451.....	6	7525215.....	11	7526767.....	14	7528219.....	12
7506926.....	4	7517469.....	6	7525223.....	11	7526775.....	14	7528250.....	17
7506975.....	4	7517485.....	6	7525504.....	13	7526973.....	13	7528268.....	17
7506983.....	4	7517501.....	6	7525512.....	13	7526981.....	13	7528276.....	17
7506991.....	4	7524507.....	10	7525538.....	13	7526999.....	13	7528284.....	17
7507007.....	16	7524515.....	10	7525595.....	13	7527005.....	2	7528292.....	17
7507015.....	16	7524523.....	10	7525603.....	13	7527013.....	2	7528300.....	17
7507023.....	16	7524556.....	10	7525629.....	13	7527021.....	2	7528318.....	17
7508252.....	4	7524564.....	10	7525637.....	13	7527039.....	2	7528326.....	17
7510506.....	4	7524572.....	10	7525652.....	13	7527112.....	2	7528755.....	12
7510712.....	8	7524580.....	10	7525678.....	13	7527120.....	2	7528763.....	12
7510720.....	8	7524598.....	10	7525751.....	13	7527138.....	2	7528789.....	12
7512510.....	8	7524614.....	10	7525769.....	13	7527146.....	2		



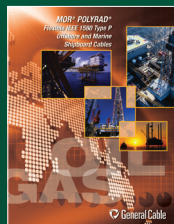




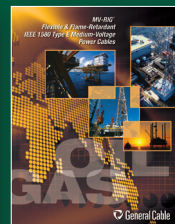
**Other General Cable Products Offered**



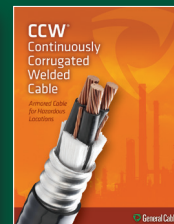
**COMMODORE®  
CATALOG**



**MOR® POLYRAD®  
CATALOG**



**MV-RIG®  
CATALOG**



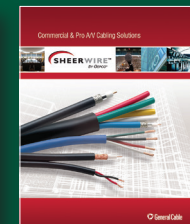
**CCW®  
CATALOG**



**X-TRACT® ESP  
CATALOG**



**GEPCO®  
CATALOG**



**SHEERWIRE™  
CATALOG**

**General Cable**

4 Tesseneer Drive  
Highland Heights,  
Kentucky 41076-9753  
U.S.A.  
info@generalcable.com

Telephone (800) 424-5666  
Fax (859) 547-8249  
International Telephone +1 859 572 8000  
International Fax +1 859 572 8058  
www.generalcable.com