



Caledonian

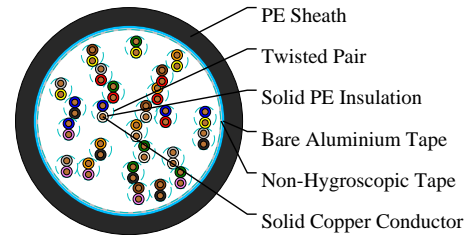
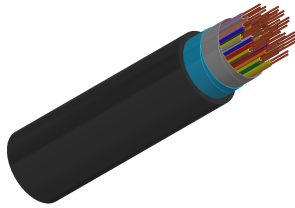
Telephone Cables

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OUTDOOR TELEPHONE CABLES

Solid PE Insulated and AP Sheathed (ALPETH) Air Core Cable to GR-421
TP421-2Y(A)2Y-25P04



APPLICATIONS

The cables are designed for use as subscriber distribution cables and as connection between central offices. The cables are suitable for installation in ducts, direct burial in the ground and also for aerial installation with integral suspension strand. An armoured option is offered for direct burial installations. A figure-8 self support option is offered for aerial installation.

STANDARDS

Telcordia (Bellcore) GR-421

CABLE CONSTRUCTION

Conductors: Solid annealed bare copper, as per ASTM B-3/class 1 of IEC 60228.

Insulation: Solid medium or high density polyethylene as per ASTM D 1248/IEC 60708.

Twisted Pairs: Insulated conductors are twisted into pairs with varying lay length to minimize crosstalk.

Cabling Element: Twisted Pairs.

Cable Core Assembly: Cables with up to 400 pairs are composed of 25-pair units or 12/13-pair units; cables with over 400 pairs are composed of 50 or 100-pair units. Any extra pairs form a separate unit. Units are identified by colour coded binders. Construction is per GR-421 given in Cable Make Up Diagram.

Core Wrapping: One or more non-hygroscopic polyester tapes are helically or longitudinally laid with an overlap. These tapes furnish thermal, mechanical as well as high dielectric protection between shielding and individual conductors.

Moisture Barrier: A layer of bare aluminium tape (0.2mm/8mil) is applied longitudinally with overlap over the cable core to provide 100% electrical shielding coverage and ensures a barrier against water vapor. In cables with more than 200 pairs, the aluminum tape may be corrugated for improved cable flexibility.

Sheath: Black low density polyethylene as per ASTM D 1248/IEC 60708, being able to withstand exposure to sunlight, temperature variations, ground chemicals and other environmental contaminants.

Ripcord: Ripcord may be provided for slitting the sheath longitudinally to facilitate its removal.

Spare Pairs (optional): Spare pairs may be incorporated for large pair cables.

Continuity Wire (optional): One tinned copper drain wire may be longitudinally laid to ensure electrical continuity of the screen.

COLOUR CODE



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Standard colour code is per GR-421 given in Colour Code Chart

PHYSICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C – +70°C

Temperature range during installation (mobile state): -20°C – +50°C

Minimum bending radius: 10 x Overall Diameter (unarmoured cables); 15 x Overall Diameter (armoured cables)

DIMENSION AND PARAMETERS

Caledonian Cable Code	No. of Pairs	AWG Size	Conductor Diameter	Nominal Insulation Thickness	Nominal Diameter over Insulation	Nominal Sheath Thickness	Nominal Sheath Thickness	Approx. Overall Diameter	Approx. Overall Diameter	Cable Weight	Cable Weight
			mm	mm	mm	in	mm	in	mm	Lbs./Kft	kg/km
TP421 -2Y(A)2Y -25P04	25	26	0.4	0.175	0.75	0.059	1.5	0.47	12	95	141