



# Caledonian

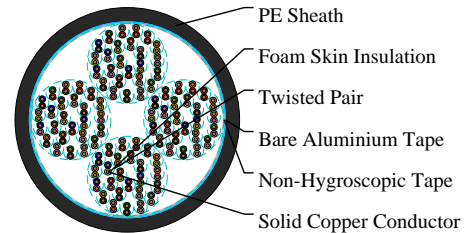
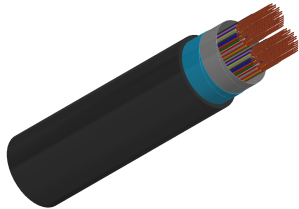
Telephone Cables

www.caledonian-cables.com

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## OUTDOOR TELEPHONE CABLES

Foam Skin Insulated & AP Sheathed (ALPETH) Jelly Filled Cables to GR-421  
TP421-02YSF(A)2Y-100P04



## APPLICATIONS

The cables are designed for use in access or trunk networks, from telephone exchange to subscriber area.

The cables are suitable for installation in ducts, direct burial in the ground and also for aerial installation with integral suspension strand. Jelly filled option is for subscriber's cables installed underground or along the edge of pavement. An armoured option is offered for direct burial installations where additional mechanical or rodent protection is required. 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:** Foam Skin which is a composite polyethylene insulation made of an inner cellular layer and an outer solid skin 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.

**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.

**Filling:** The cable core interstices are filled with petroleum jelly to avoid longitudinal water penetration within the cable. The water resistant filling compound is applied to the air space between non-hygroscopic tape and shield, shield and sheath within the cable core.

**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.



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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

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 -02YSF (A)2Y -100P04	100	26	0.4	0.175	0.75	0.071	1.8	0.827	21	302	450