POLYCAB
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CABLES

JELLY FILLED UNDER GROUND ARMOURED TELECOM CABLE

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TITLE: GENERAL TECHNICAL PARTICULARS FOR SOLID POLYTHENE INSULATION COPPER CONDUCTOR, JELLY FILLED, CORE WRAPPED POLYESTER, MOISTURE BARRIER POLYAL SCREENED, BLACK 03C POLYTHENE INNER SHEATH, DOUBLE STEEL TAPE ARMOUR, BLACK 03C POLYTHENE OUTER SHEATHED UNDER GROUND ARMOURED TELECOMCABLE AS PER GR/CUG-01/03 AUG 2003	
TECHNICAL DESCRIPTION	**DETAILS**
Make	Polycab India Ltd.
Cable Type	JELLY FILLED UNDER GROUND ARMOURED TELECOM CABLE
Applicable Specifications	TEC /BSNL Spec. NO GR/CUG-01/03AUG.2003
Number of Pairs	20 Pair
Quantity	As per your requirement
Conductor	
a) Material	Copper
b) Grade	--------
c) Nominal Diameter (mm)	0.50mm
d) Shape of Conductor	Circular
Insulation	**Solid Polythene**
a) Material	HDPE (Type III, Conforming to ASTM D 1248)
b) Nominal Thickness of insulation (mm)	The thickness of insulation shall be adequate to meet the electrical requirements
c) Method of Application	Extrusion
d) Color scheme for identification of cores	As per IS-9938
Twining	Two insulated conductors uniformly twisted together to form a pair so as to minimize cross talk. Each pair having different lay length not exceed 100 mm.
Group Twining	5 Pair Twisted together to for 5 Pair unit, 10 Pair Twisted together to for 10 Pair unit, 20 Pair Twisted together to for 20 Pair unit, In sub-units of 10 pairs for Laid-up of 50 pairs. (5 x 10Pair) In sub-units of 20 pairs for Laid-up of 100 pairs. (5 x 20Pair) In super units of 50 pairs for laid-up of 200 pairs. (4 x 50Pair)

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Note: -The values given above are subject to tolerances as per the relevant standards.

Unit Identification	Unit is identified by wrapping colored polypropylene binder.
Filling Compound	Petroleum jelly is used as a filling compound having permittivity less than 2.30. Jelly should be non-toxic odorless, non-hazardous and waterproof.
Laid up	Cable core is wrapped by longitudinally application of non-hygroscopic Polyester tape with suitable overlap.
Screening (Moisture Barrier)	
a) Material	Poly-al
b) Nom. Thickness of composite tape	0.300 mm (0.3±15%)
c) Overlap Minimum	Up to 100 Pr → 3mm & above 200 Pr → 6mm
Sheath	
a) Material	Black LDPE
b) Type	03C/HO3C of Conforming to BS 6234
c) Thickness Minimum	Up to 100 Pr → 1.50 mm & 200 Pr → 1.65mm
Bedding Tape	Two Black HDPE Tape shall be applied helically on the inner sheath
Armouring	**Double Galvanized Steel Tape Armour**
a) Thickness (mm)	0.50mm ± 10%
b) Gap (mm)	15% to 35% of the Nominal width
c) Overlap (mm)	Min.15% of the Nominal width
Jacket	
a) Material	Black LDPE
b) Type	03C/HO3C of Conforming to BS 6234
c) Thickness Minimum	1.05mm
d) Overall Diameter (mm)	For 5Pr→ 13.5±2mm, For 10Pr→ 15.5±2mm, For 20Pr→ 18.0±2mm, For 20Pr→ 18.0± 2mm For 50Pr→ 23.5±2mm, For 100Pr→ 29.5±3mm, For 200Pr→ 38.5±3mm,
Electrical Parameter	**0.50mm conductor**
a) Conductor Resistance Maximum	92.0 Ohm/Km
b) Mutual Capacitance	49 – 55 nF/Km
c) CUPP Maximum	200 pF/Km
Average	50 pF/Km
d) CUPG Maximum	3000 pF/Km
Average	750 pF/Km
e) Dielectric Strength (DC Voltage)	
Conductor to Conductor	The insulation between conductors shall withstand for 3 seconds a DC potential of 2.4 KV
Conductor to shield	The insulation between the conductors & Sheild shall withstand for 3 seconds a DC potential of 5 KV
f) Insulation Resistance	Min. 5000 MOhm/Km
Standard Length (mtrs) Up to 50 Pair	1000mtr (±10%)
100 Pair	500mtr (±10%)
200 Pair	400mtr (±10%)
Cable Printing Details (embossing/engraved)	"Handset" "SIZE " "POLYCAB INDIA" "Drum No" + Seq. mtr marking
Length Marking	Cable length marked at every 1 meter of length
Type of Drum offered and its dimensions	Wooden Drum and dimension as per manufacturer discretion

Note: -The values given above are subject to tolerances as per the relevant standards.