

Copper Structured Cabling, Cable, CAT3, U/UTP, Outdoor

Features and benefits

- Jelly filled cable
- 24 AWG solid conductors
- PE cable jacket for outdoor applications
- Compliant to ANSI/TIA-568-C.2, ISO/IEC 11801:2011 and EN 50173:2011
- Reliable performance
- Colour-coded multi-pairs
- Super-standard performance margin



Description

Opterna outdoor jelly filled telephone cables are primarily designed for the interconnection of various buildings in a campus environment. These cables are suitable for installation in outdoor ducts. In addition, these cables may be used for the interconnection of other communication and control equipment or low-level signalling applications.

The cable is available in 5, 10, 25, 50, 100 pairs of 24 AWG solid copper insulated conductors, assembled into twisted pairs, with a ripcord and an overall jacket.

The cable's conductors are of solid bare copper high-density polyethylene (HDPE) insulation. Two insulated conductors are twisted together to form a pair and multiple pairs are bundled together with a color binder to form the cable sub-unit.

For higher count multi pair cable the sub-unit will be identified with a color code. The multi pairs are wrapped with an overall polyester tape for extra protection. The cores are surrounded in jelly to protect against the ingress of moisture and wrapped with an overall PE jacket.

Applications

- Backbone Cabling
- 10 BASE-T (IEEE 802.3)
- Analogue Voice, ISDN, ADSL
- HVAC, Alarm systems and other signalling

Standards

- ANSI/TIA-568-C.2
- ISO/IEC 11801:2011 (Ed 2.2) Class C
- CENELEC EN 50173-1:2011

Technical data

| Mechanical data | Value |
|------------------------|---|
| Dimensions (W x D x H) | See technical drawing |
| Material | Conductor material - Solid bare copper Conductor insulation - HDPE |

| | | | | | |
|------------------------------|---|---------|---------|---------|----------|
| | Filling compound - Jelly Separator - Polyester tape Cable jacket - PE | | | | |
| Conductor diameter | 24 AWG | | | | |
| Insulated conductor diameter | 0.9 ± 0.02 mm | | | | |
| Outer cable diameter in mm | 5 Pair | 10 Pair | 25 Pair | 50 Pair | 100 Pair |
| | 9.5 | 11.5 | 14.10 | 18.50 | 24.60 |
| Jacket thickness in mm | 5 Pair | 10 Pair | 25 Pair | 50 Pair | 100 Pair |
| | 1.40 | 1.40 | 1.40 | 1.40 | 1.60 |

Electrical data

| Frequency (MHZ) | RL (≥ dB) | ATT 20°C (≤ dB) | NEXT (≥ dB) |
|-----------------|-----------|-----------------|-------------|
| 1 | 12 | 2.60 | 41.30 |
| 4 | 12 | 5.60 | 32.30 |
| 8 | 12 | 8.50 | 27.80 |
| 10 | 12 | 9.70 | 26.30 |
| 16 | 9.96 | 13.10 | 23.20 |

| Electrical characteristics | Value |
|----------------------------|-----------------|
| DC resistance max | 9.38 Ohm/100m |
| DC resistance unbalance | Max 5% |
| Mutual capacitance | Max 5.6 nF/100m |
| Capacitance unbalance pair | Max 330pF/100m |
| Impedance 1-16 MHz | 100 ± 15Ω |

Environmental data

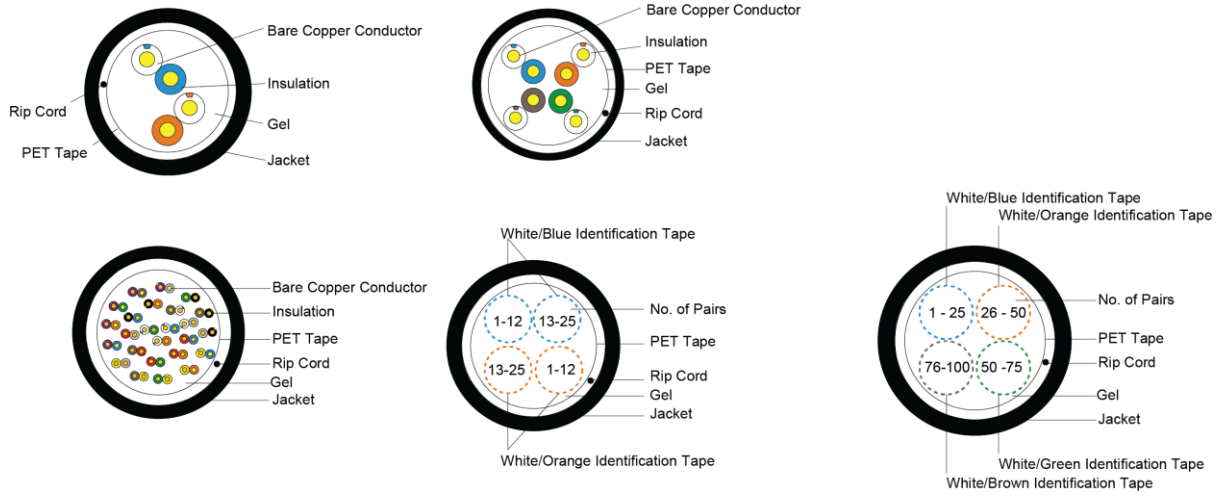
| Temperature range | Value |
|-------------------|------------------|
| Operation | -20° C to +75° C |

Pair identification

| Cable element | A | B | Cable element | A | B | Cable element | A | B |
|---------------|--------------|--------|---------------|---------------|--------|---------------|---------------|--------|
| Pair 1 | White/Blue | Blue | Pair 11 | Black/Blue | Blue | Pair 21 | Violet/Blue | Blue |
| Pair 2 | White/Orange | Orange | Pair 12 | Black/Orange | Orange | Pair 22 | Violet/Orange | Orange |
| Pair 3 | White/Green | Green | Pair 13 | Black/Green | Green | Pair 23 | Violet/Green | Green |
| Pair 4 | White/Brown | Brown | Pair 14 | Black/Brown | Brown | Pair 24 | Violet/Brown | Brown |
| Pair 5 | White/Grey | Grey | Pair 15 | Black/Grey | Grey | Pair 25 | Violet/Grey | Grey |
| Pair 6 | Red/Blue | Blue | Pair 16 | Yellow/Blue | Blue | | | |
| Pair 7 | Red/Orange | Orange | Pair 17 | Yellow/Orange | Orange | | | |
| Pair 8 | Red/Green | Green | Pair 18 | Yellow/Green | Green | | | |
| Pair 9 | Red/Brown | Brown | Pair 19 | Yellow/Brown | Brown | | | |
| Pair 10 | Red/Grey | Grey | Pair 20 | Yellow/Grey | Grey | | | |

| Tape Lapping Identification | | | | | |
|-----------------------------|--------|--------|-------|---------|--------|
| 1 Unit | Blue | 5 Unit | Grey | 9 Unit | Yellow |
| 2 Unit | Orange | 6 Unit | White | 10 Unit | Violet |
| 3 Unit | Green | 7 Unit | Red | | |
| 4 Unit | Brown | 8 Unit | Black | | |

Technical drawing



Ordering information

| Description | Part code |
|--|-------------------|
| Outdoor Jelly Filled Category 3 Multi-pair Cable, PE | SCS-UTP-xxx-C3-PE |

xxx – Number of Pairs: 5, 10, 25, 50, 100 pairs