# OSP Telecom Cable

PACW/Cell PE Insulation/PJ Filled/PE Sheathed/Steel Wire Armour/PE Oversheath External Telephone Cable (Complies with BT Specifications CW1236/CW1198)

## CW1236/1198 (with armour but no screen) / 0.50Cu

### Application

The cable is designed primarily for direct burial in the outside plant area telecommunications networks. The cable core comprises units of cellular polyethylene insulated twin conductors flooded with petroleum jelly compound with a drop point greater than 80°C and wrapped with a paper tape. The cable core is covered with a black polyethylene inner sheath. A layer of galvanised steel armour wires is then applied over the sheathed cable and an outer sheath of PE is applied over the armour wires.

### Construction

Available as twisted pairs in 25 Pair Units.

### Product description

Plain annealed solid copper wire, cellular polyethylene insulation, twisted pairs, petroleum jelly filling, paper core wrap, and black low-density polyethylene sheath. The armour is used as additional protection of telecommunication cables for direct burial.

### Product description (Continued)

The jelly-filled cable is armoured with a suitable number of galvanised mild steel wires applied directly over the polyethylene sheath of the cable. The wires comply with BS EN 10257 Part 1 except that the tensile strength is not less than 340 MN/$m^2$ and not greater than 540 MN/ $m^2$. The value of resistivity for the armour is not mandatory. The armoured cable is sheathed overall with PE.


| No. of Pairs | Conductor Diameter (mm) | Nominal Insulated Diameter (mm) | Minimum Overall Radial (mm) | Resistance @ 20°C (ohms/km) | | Mutual Capacitance (nF/km) | | Maximum Overall Diameter (mm) |
|---|---|---|---|---|---|---|---|---|
| | | | | Max Ave | Max (99%) | Max Ave | Max (99%) | |
| 200 | 0.50 | 0.90 | 1.9 | 91 | 96 | 56 | 64 | 38.5 |
| 400 | 0.50 | 0.90 | 1.9 | 91 | 96 | 56 | 64 | 50.5 |

**Note:** Mutual capacitance values may be increased by 3% for cables with a nominal number of pairs less than 400pr.

### CW1236 Pair colour scheme, unit binder colours and cable make-up

| Cabling Element Number | a-wire | b-wire |
|---|---|---|
| 1 | WHITE | Blue |
| 2 | WHITE | Orange |
| 3 | WHITE | Green |
| 4 | WHITE | Brown |
| 5 | WHITE | Grey |
| 6 | RED | Blue |
| 7 | RED | Orange |
| 8 | RED | Green |
| 9 | RED | Brown |
| 10 | RED | Grey |
| 11 | BLACK | Blue |
| 12 | BLACK | Orange |
| 13 | BLACK | Green |
| 14 | BLACK | Brown |
| 15 | BLACK | Grey |
| 16 | YELLOW | Blue |
| 17 | YELLOW | Orange |
| 18 | YELLOW | Green |
| 19 | YELLOW | Brown |
| 20 | YELLOW | Grey |
| 21 | VIOLET | Blue |
| 22 | VIOLET | Orange |
| 23 | VIOLET | Green |
| 24 | VIOLET | Brown |
| 25 | VIOLET | Grey |

| Cable Size | No. and Pair Size of Unit in Centre and Layer 1 | | No of Pairs in Spare Pair Unit | No of Un-usable Pairs allowed |
|---|---|---|---|---|
| 100 | 1x25 | | 0 | 1 |
| 200 | 1x50 | 6x25 | 4 | 2 |
| 400 | 1x100 | 6x50 | 4 | 3 |

### Insulation resistance.

Insulation resistance measurements shall be made with not less than 500 volts D.C. After steady electrification for one minute the insulation resistance measured between each conductor and the remaining conductors connected together shall be not less than 1500 megohms per 1000 metres at 20°C.

### Capacitance unbalance

Pair-to-Pair capacitance unbalance measurements shall be made at a suitable audio frequency. The measurements shall be corrected as follows, L being the length in metres of the cable under test. Lengths of less than 100 metres are considered as 100 metres.

½ [L/500 + (L/500)½]

Not more than 1% of the corrected capacitance unbalance measurements between adjacent pairs shall exceed 275pF.

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