# BT Cables

## Indoor / Outdoor Cable - CW1308B

PACW/PVC Insulation/LAP/LSZH Sheathed

Universal Campus Cable (Construction and Electrical Performance as per CW1308)

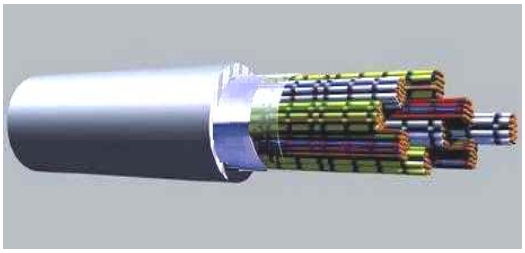
### *Application*

The cable is designed primarily for interconnection between buildings within a telecommunication network where the cable is used both inside the building and outside in ducts between the buildings. The cable replaces the traditional PVC sheathed cable inside the building and the Polyethylene sheathed cable outside, making the need to joint at building entries redundant. The design includes a metallic moisture barrier bonded to the sheath to combat the ingress of moisture vapour and the sheath is a low smoke non-halogenated polymer, which imparts a high degree of flame retardancy to the cable. The cable core is similar to BT Specification CW 1308.

### *Construction*

Twisted pairs in 10 Pair Units. The pair range is 10 – 100.

| Number Pairs | Conductor Diameter (mm) | Minimum Radial Insulation (mm) | Maximum Insulated Diameter (mm) | Unit Size/ Make-up | Minimum Sheath Radial (mm) | Maximum Overall Diameter (mm) | Resistance @ 20°C (ohms/km) | Capacitance Unbalance (pF/500m) |
|---|---|---|---|---|---|---|---|---|
| 10 | 0.5 | 0.15 | 0.95 | 10 | 0.60 | 8.3 | 97.8 | 500 |
| 20 | 0.5 | 0.15 | 0.95 | 10 | 0.80 | 10.7 | 97.8 | 500 |
| 30 | 0.5 | 0.15 | 0.95 | 10 | 0.80 | 12.2 | 97.8 | 500 |
| 40 | 0.5 | 0.15 | 0.95 | 10 | 0.90 | 15.0 | 97.8 | 500 |
| 50 | 0.5 | 0.15 | 0.95 | 10 | 1.00 | 17.0 | 97.8 | 500 |
| 60 | 0.5 | 0.15 | 0.95 | 10 | 1.20 | 17.0 | 97.8 | 500 |
| 80 | 0.5 | 0.15 | 0.95 | 10 | 1.20 | 22.5 | 97.8 | 500 |
| 100 | 0.5 | 0.15 | 0.95 | 10 | 1.50 | 27.0 | 97.8 | 500 |
| 10(+E) | 0.5 | 0.15 | 0.95 | 10 | 0.60 | 8.6 | 97.8 | 500 |
| 20(+E) | 0.5 | 0.15 | 0.95 | 10 | 0.70 | 12.0 | 97.8 | 500 |
| 30(+E) | 0.5 | 0.15 | 0.95 | 10 | 0.80 | 12.2 | 97.8 | 500 |
| 40(+E) | 0.5 | 0.15 | 0.95 | 10 | 0.90 | 15.0 | 97.8 | 500 |
| 50(+E) | 0.5 | 0.15 | 0.95 | 10 | 1.10 | 18.0 | 97.8 | 500 |
| 80(+E) | 0.5 | 0.15 | 0.95 | 10 | 1.20 | 22.5 | 97.8 | 500 |
| 100(+E) | 0.5 | 0.15 | 0.95 | 10 | 1.50 | 27.0 | 97.8 | 500 |



**Product Description**

Plain annealed solid copper wire; PVC insulation with the required number of pairs assembled in 20 pair units. A polyester tape is applied over the cable core followed by a Polyethylene/Aluminium Laminate moisture barrier, which is bonded to the Low Smoke Non-Halogenated (LSZH) sheath. An optional 1.38mm diameter PVC insulated Earth Wire may be included within the cable core on request.

Note: The items indicated as (+E) in the table above are available with or without an earth-wire. If an earth-wire is included, it consists of a 1.38mm solid copper conductor (maximum resistance 12.4 ohms/km), insulated with Cream PVC to a nominal 2.7mm.

*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 50 megohms per 1000 metres at 20°C.



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### *Colour Scheme for Pairs*

| Cabling Element No. | a-wire | b-wire |
|---|---|---|
| 1 | WHITE-Blue | BLUE-White |
| 2 | WHITE-Orange | ORANGE-White |
| 3 | WHITE-Green | GREEN-White |
| 4 | WHITE-Brown | BROWN-White |
| 5 | WHITE-Grey | GREY-White |
| 6 | RED-Blue | BLUE-Red |
| 7 | RED-Orange | ORANGE-Red |
| 8 | RED-Green | GREEN-Red |
| 9 | RED-Brown | BROWN-Red |
| 10 | RED-Grey | GREY-Red |
| 11 | BLACK-Blue | BLUE-Black |
| 12 | BLACK-Orange | ORANGE-Black |
| 13 | BLACK-Green | GREEN-Black |
| 14 | BLACK-Brown | BROWN-Black |
| 15 | BLACK-Grey | GREY-Black |
| 16 | YELLOW-Blue | BLUE-Yellow |
| 17 | YELLOW-Orange | ORANGE-Yellow |
| 18 | YELLOW-Green | GREEN-Yellow |
| 19 | YELLOW-Brown | BROWN-Yellow |
| 20 | YELLOW-Grey | GREY-Yellow |

Note 1: Uppercase letters indicate the base, solid colour of insulation, and the lower case indicates ink bands applied onto the base colour

### *Make-up & Unit Identification Colours – 20 Pair Unit*

| Pair Size | 10 Pair | 20 Pair | 40 Pair | 50 Pair | 80 Pair | 100 Pair |
|---|---|---|---|---|---|---|
| | Number of Units | | | | | |
| Centre | ½ | 1 | 4 x ½ | 5 x ½ | 1 | 1 |
| 1st Layer | | | | | 6 x ½ | 8 x ½ |
| 2nd Layer | | | | | | ***** |
| Unit No. | Colours of Unit Lappings | | | | | |
| 1 | Orange | Orange | Orange | Orange | Orange | Orange |
| 2 | | | Green | Natural | Orange | Orange |
| 3 | | | | Green* | Natural | Natural |
| 4 | | | | | Green | Natural |
| 5 | | | | | | Green |

Notes: ½ refers to sub-units of 10 Pairs.

* The Green colour lapping shall be applied to the last ½ unit.

***** At the manufacturer's discretion the first layer may be 4 x 1.
Alternatively the centre layer may be 5 x 1 in which case the Unit lappings shall be coloured Orange, 3 x Natural, Green.


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