

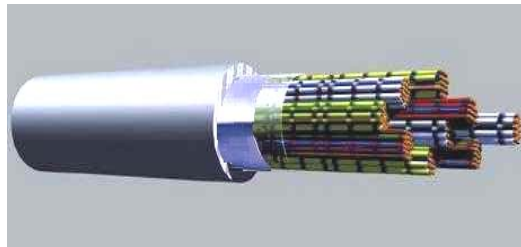
Application

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)
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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.

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

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.

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
1 st Layer					6 x ½	8 x ½
2 nd 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.