

**FULLY-FILLED, UNIT TWIN, CABLE FOR SECONDARY NETWORK
TELEPHONE CABLE P.E.U.T.F.F. TO TMB SPEC. CL 0543**

CONDUCTOR

Annealed Copper Wire

INSULATION

The insulation is a dual insulation with an inner core of cellular polyethylene and an outer skin of solid polyethylene

TWINNING

Two insulated conductors are twisted together to form a pair

STRANDING UNIT

5 or 10 pairs

LAID-UP

Unit are laid-up into a compact and symmetrical cable core

CORE WRAPPING

The cable core is wrapped with a layer of mylar tape

FILLING

The interstices of the cable core are completely filled with jelly compound

MOISTURE BARRIER SHEATH

An aluminium tape with polymer coating is applied over the cable core and then sheathed with black polyethylene

ELECTRICAL CHARACTERISTICS

Size	Conductor resistance at 20°C		Mutual capacitance	Capacitance unbalance		Insulation resistance	Dielectric strength	
	Max. average	Max. for 90% of cases		Max. average	* Pair-to-pair		Pair-to-ground	Min.
			Max.		Max. ave.			
mm	ohm/km	ohm/km	nF/km	pF/500m	pF/km	Mohm. km	V. dc	V. dc
0.40	143	150	52 ± 2	200	574	10,000	2000	4000
0.50	91	96	52 ± 2	200	574	10,000	2000	4000
0.63	58	60	52 ± 2	200	574	10,000	2000	4000
0.90	28	30	52 ± 2	200	574	10,000	2000	4000

* The measured values shall be divided by $\frac{1}{2} \left(\frac{L}{500} + \sqrt{\frac{L}{500}} \right)$

where L is the length in meter of the cable under test
Length less than 100 meters are considered as 100 meters

TELEPHONE CABLE P.E.U.T.F.F. TO TMB SPEC. CL 0543**CONSTRUCTION DATA**

Conductor		PE sheath thickness	Cable overall diameter	Approx. cable weight	Packing length
Size	No. of pairs	Sheath			
mm	pr	mm	mm	kg/km	m/drum
0.4	10	2.1	9.9	100	1000
0.4	20	2.1	11.8	155	1000
0.4	30	2.1	13.3	200	1000
0.4	50	2.1	15.7	290	1000
0.4	100	2.1	19.8	500	1000
0.4	200	2.2	25.6	900	1000
0.5	10	2.1	11.0	130	1000
0.5	20	2.1	13.4	210	1000
0.5	30	2.1	15.3	280	1000
0.5	50	2.1	18.2	410	1000
0.5	100	2.1	23.3	720	1000
0.5	200	2.3	30.5	1320	1000
0.63	10	2.1	12.4	175	1000
0.63	20	2.1	15.4	290	1000
0.63	30	2.1	17.7	390	1000
0.63	50	2.1	21.4	600	1000
0.63	100	2.2	27.9	1070	1000
0.63	200	2.4	36.8	1980	1000
0.9	10	2.1	15.6	290	1000
0.9	20	2.1	19.9	510	1000
0.9	30	2.1	23.2	710	1000
0.9	50	2.2	28.7	1120	1000
0.9	100	2.4	38.1	2070	1000
0.9	200	2.9	51.3	3910	500

TELEPHONE CABLE P.E.U.T.F.F. TO TMB SPEC. CL 0543**A) COLOUR SCHEME FOR PAIRS WITHIN 5-PAIR AND 10-PAIR UNITS**

Pair number	Colour of conductor insulation			
	A - Wire	B - Wire	Remarks	
1.	White	Blue	First 5 pair sub-unit	10 pair unit
2.	White	Orange		
3.	White	Green		
4.	White	Brown		
5.	White	Grey		
6.	Red	Blue	Second 5 pair sub-unit	
7.	Red	Orange		
8.	Red	Green		
9.	Red	Brown		
10.	Red	Grey		

Note : 1st 5 pair is from No. 1 to No. 5
2nd 5 pair is from No. 6 to No. 10

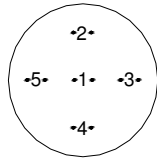
B) COLOUR OF BINDER TAPES - 10-PAIR UNITS

Unit no.	Colour of binder	Unit no.	Colour binder
1. (1A, 1B)	Blue	11.	Blue
2. (2A, 2B)	Orange	12.	Orange
3.	Green	13.	Green
4.	Brown	14.	Brown
5.	Grey	15.	Grey
6.	Blue - White	16.	Blue - White
7.	Orange - White	17.	Orange - White
8.	Green - White	18.	Green - White
9.	Brown - White	19.	Brown - White
10.	Grey - White	20.	Grey - White

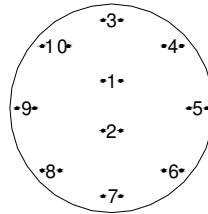
Note : Unit No. 11-20 apply to 200 pair cable

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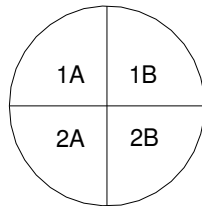
CABLE MAKE-UP



5 Pairs
(or 5-Pair Sub Units)

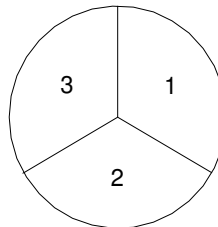


10 Pairs
(or 10-Pair Sub Units)



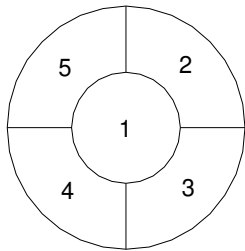
20 Pairs
(or 20-Pair Sub Units)

4 x 5Pair
Sub Units

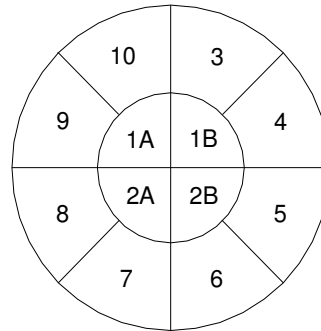


30 Pairs

3 x 10Pair
Sub Units

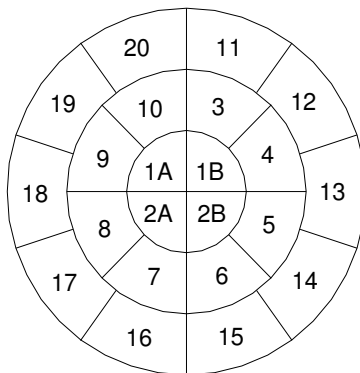


50 Pairs



100 Pairs

Core 1 x 20Pair Unit
Layer 8 x 10Pair Sub Units



200 Pairs

Core 1 x 100Pair Unit
Layer 10 x 10Pair Sub Units