

TELEPHONE CABLE

FULLY FILLED, UNIT TWIN, MOISTURE BARRIER SHEATHED CABLE FOR SECONDARY NETWORK (PEUT FF)

SPECIFICATION : TMB LINES CL 0543
CONDUCTOR : PLAIN ANNEALED COPPER WIRE
INSULATION : POLYOLEFIN
SHEATHING : POLYETHYLENE

Conductor : Annealed Copper Wire
 Insulation : Coloured foam-skin polyolefin
 Twining : Two insulated conductors are twisted together to form a pair
 Stranding Unit : 5 or 10 pairs
 Laid-Up : Units 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 PE

Conductor		PE	Cable	Approx. Weight	Packing Length	Conductor Resistance		Mutual Capacitance		Capacitance Unbalance		Insulation Resistance	Dielectric Strength	
Size	No. of Pairs	Sheath Thickness	Overall Diameter			Max. Average	Max. for 90% of Cases	Max. Average	Max.	Pair to Pair	Pair to Ground	Min.	Conductor to Conductor	Conductor to Shield
mm	Pr.	mm	mm	kg/km	m/drum	Ω/km	Ω/km	nF/km	nF/km	pF/500m	pF/km	MΩ/km	DCV	DCV
0.40	10	2.1	10.2	100	2000	143	150	52 ± 2	3% of Average Value	200	574	10000	2000	4000
0.40	20	2.1	11.9	165	1000	143	150	52 ± 2		200	574	10000	2000	4000
0.40	30	2.1	13.2	220	1000	143	150	52 ± 2		200	574	10000	2000	4000
0.40	50	2.1	15.3	340	1000	143	150	52 ± 2		200	574	10000	2000	4000
0.40	100	2.1	19.3	550	1000	143	150	52 ± 2		200	574	10000	2000	4000
0.40	200	2.3	26.5	930	1000	143	150	52 ± 2		200	574	10000	2000	4000
0.50	10	2.1	11.5	140	2000	91	96	52 ± 2		200	574	10000	2000	4000
0.50	20	2.1	13.9	220	1000	91	96	52 ± 2		200	574	10000	2000	4000
0.50	30	2.1	15.3	290	1000	91	96	52 ± 2		200	574	10000	2000	4000
0.50	50	2.1	18.3	420	1000	91	96	52 ± 2		200	574	10000	2000	4000
0.50	100	2.1	23.8	740	1000	91	96	52 ± 2		200	574	10000	2000	4000
0.50	200	2.4	32.4	1350	1000	91	96	52 ± 2		200	574	10000	2000	4000
0.63	10	2.1	13.7	190	2000	58	60	52 ± 2		200	574	10000	2000	4000
0.63	20	2.1	15.7	305	1000	58	60	52 ± 2		200	574	10000	2000	4000
0.63	30	2.1	18.5	410	1000	58	60	52 ± 2		200	574	10000	2000	4000
0.63	50	2.1	22.0	620	1000	58	60	52 ± 2		200	574	10000	2000	4000
0.63	100	2.3	28.7	1110	1000	58	60	52 ± 2		200	574	10000	2000	4000
0.63	200	2.4	39.4	2055	1000	58	60	52 ± 2		200	574	10000	2000	4000
0.90	10	2.1	14.8	310	2000	28	30	52 ± 2		200	574	10000	2000	4000
0.90	20	2.1	19.2	525	1000	28	30	52 ± 2		200	574	10000	2000	4000
0.90	30	2.1	21.3	730	1000	28	30	52 ± 2		200	574	10000	2000	4000
0.90	50	2.2	27.1	1130	1000	28	30	52 ± 2		200	574	10000	2000	4000
0.90	100	2.4	38.1	2100	500	28	30	52 ± 2		200	574	10000	2000	4000
0.90	200	2.9	51.0	4030	500	28	30	52 ± 2		200	574	10000	2000	4000
1.27	10	2.2	21.1	540	2000	14	15	52 ± 2	200	574	10000	2000	4000	
1.27	20	2.2	27.6	1120	1000	14	15	52 ± 2	200	574	10000	2000	4000	
1.27	30	2.3	32.7	1700	1000	14	15	52 ± 2	200	574	10000	2000	4000	
1.27	50	2.4	40.7	2800	500	14	15	52 ± 2	200	574	10000	2000	4000	
1.27	100	2.9	56.0	4900	500	14	15	52 ± 2	200	574	10000	2000	4000	
1.27	200	3.3	76.9	8650	250	14	15	52 ± 2	200	574	10000	2000	4000	

The measured values shall be divided by $1/2 \left(\frac{L}{500} + \sqrt{\frac{L}{500}} \right)$ where L is the length in meter of the cable under test.
 Length less than 100 meters are considered as 100 meters

TELEPHONE CABLE

FULLY FILLED, UNIT TWIN, MOISTURE BARRIER SHEATHED CABLE FOR SECONDARY NETWORK (PEUT FF)

COLOR SCHEME FOR 5-PAIR AND 10-PAIR UNITS				
Pair Number	A - Wire	B - Wire	Notes	
1	White	Blue	First 5 Pair Unit	10 Pairs Unit
2	White	Orange		
3	White	Green		
4	White	Brown		
5	White	Grey		
6	Red	Blue	Second 5 Pair Unit	
7	Red	Orange		
8	Red	Green		
9	Red	Brown		
10	Red	Grey		

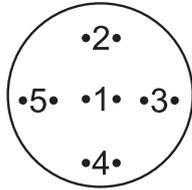
1st 5 pair is from No. 1 to No. 5
2nd 5 pair is from No. 6 to No. 10

COLOR OF BINDER TAPES 10-PAIR UNITS			
Unit No.	Colour of Binder	Unit No.	Colour of Binder
1	Blue	11	Blue
1A, 1B			
2	Orange	12	Orange
2A, 2B			
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

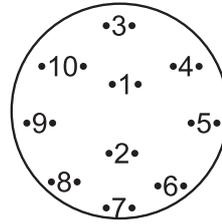
Unit No. 11-20 only apply to 200 pair cable

TELEPHONE CABLE

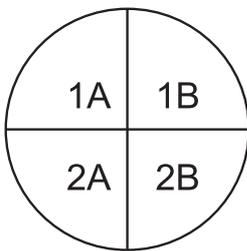
FULLY FILLED, UNIT TWIN, MOISTURE BARRIER SHEATHED CABLE FOR SECONDARY NETWORK (PEUT FF)



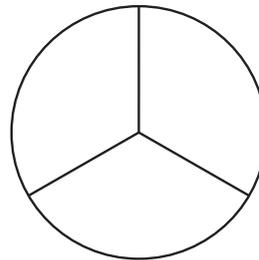
5 Pairs Cable
(Or Sub Unit)



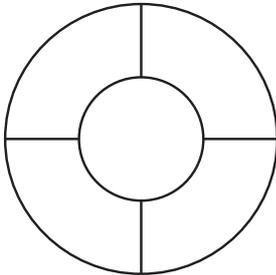
10 Pairs Cable
(Or Sub Unit)



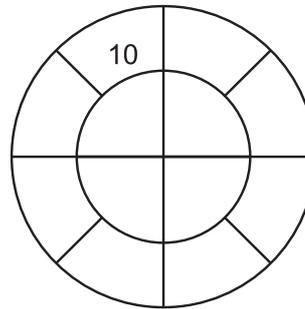
20 Pairs Cable
(Or 20 Pair Unit)
4 X 5 Pair Sub Units



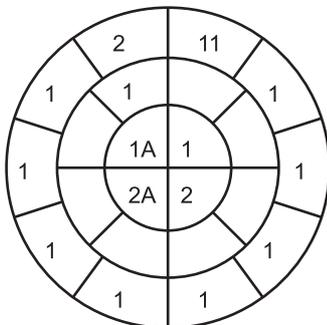
30 Pairs Cable
3 X 10 Pair Sub Units



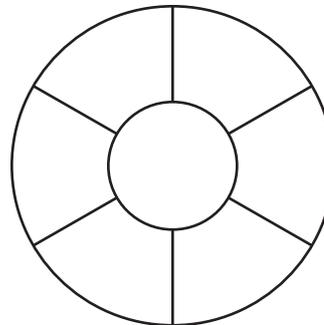
50 Pairs Cable
5 X 10 Pair Sub Units



100 Pairs Cable
Core 1 X 20 Pair Units
Layer 8 X 10 Pair Sub Units



200 Pairs Cable
Core 100 Pair Unit
Layer 10 X 10 Sub Units



400 Pairs Cable
Core 100 Pair Units
Layer 6 X 50 Pair Units

TELEPHONE CABLE

CABLE TELEPHONE, POLYETHYLENE INSULATED, MOISTURE BARRIER SHEATHED, UNIT TWIN TYPE, INTEGRAL BEARER FOR AERIAL ERECTION (PEUT IB)

SPECIFICATION	: TMB LINES AC 0001
CONDUCTOR	: PLAIN ANNEALED COPPER WIRE
INSULATION	: HIGH DENSITY POLYETHYLENE
SHEATHING	: POLYETHYLENE

Conductor	: Annealed Copper Wire
Insulation	: High density polyethylene conforming with the colour standard of BS 6746 C
Twinning	: Two insulated conductors are twisted together to form a pair
Stranding Unit	: 5 or 10 pairs
Laid-Up	: Units are laid up into a compact and symmetrical cable core
Core Wrapping	: The cable core is wrapped with a layer of mylar tape
Bearer Wire	: High tensile galvanized steel wire
Moisture Barrier Sheath	: An aluminium tape with polymer coating is applied over the cable core and then sheathed with black PE
Bearer Wire	: High tensile Galvanized Steel Wire

Conductor		PE	Bearer Wire				Dimension		Approx. Weight	Packing Length
Size	No. of Pairs	Sheath Thickness	Size	Web Thickness	Web Depth	Bearer Sheath Thickness	M1	M2		
mm	Pr	mm	mm	kg/km	m/drum	Ω/km	Ω/km	nF/km	nF/km	pF/500m
0.40	5	2.1	1/2.5	2.0	1.5	1.0	14.9	8.6	125	2000
0.40	10	2.1	1/2.5	2.0	1.5	1.0	16.3	10.1	160	2000
0.40	20	2.1	1/2.5	2.0	1.5	1.0	18.3	12.2	200	1000
0.40	30	2.1	1/2.5	2.0	1.5	1.0	20.8	14.7	260	1000
0.40	50	2.1	1/2.5	2.0	1.5	1.0	23.6	17.5	350	1000
0.40	100	2.2	7/1.2	2.0	1.5	1.3	29.7	22.1	580	1000
0.40	200	2.3	7/1.6	2.5	1.5	1.5	33.5	25.9	1000	1000
0.40	400	2.5	7/2.0	3.0	1.5	1.5	45.8	35.1	1800	500
0.50	5	2.1	1/2.5	2.0	1.5	1.0	15.7	9.5	140	2000
0.50	10	2.1	1/2.5	2.0	1.5	1.0	17.5	11.4	175	2000
0.50	20	2.1	1/2.5	2.0	1.5	1.0	20.3	14.2	245	1000
0.50	30	2.1	7/1.2	2.0	1.5	1.0	27.4	19.8	345	1000
0.50	50	2.2	7/1.2	2.0	1.5	1.3	28.4	20.8	500	1000
0.50	100	2.3	7/1.6	2.5	1.5	1.5	36.1	26.8	900	1000
0.50	200	2.4	7/2.0	3.0	1.5	1.5	41.4	30.7	1500	500
0.50	400	2.7	7/2.0	3.0	1.5	1.5	53.4	42.7	2500	500
0.63	5	2.1	1/2.5	2.0	1.5	1.0	16.9	10.6	160	2000
0.63	10	2.1	1/2.5	2.0	1.5	1.0	19.0	12.9	320	2000
0.63	20	2.1	1/2.5	2.0	1.5	1.0	22.1	16.0	320	1000
0.63	30	2.2	7/1.2	2.0	1.5	1.3	29.7	20.3	445	1000
0.63	50	2.2	7/1.2	2.0	1.5	1.3	31.5	23.8	650	1000
0.63	100	2.4	7/1.6	2.5	1.5	1.5	38.6	30.9	1200	1000
0.63	200	2.5	7/2.0	3.0	1.5	1.5	48.3	37.6	2050	500
0.90	5	2.1	1/2.5	2.0	1.5	1.0	19.2	12.9	220	2000
0.90	10	2.1	1/2.5	2.0	1.5	1.0	22.9	16.7	330	2000
0.90	20	2.2	7/1.2	2.0	1.5	1.3	29.2	21.6	560	1000
0.90	30	2.3	7/1.2	2.0	1.5	1.3	34.4	26.6	750	1000
0.90	50	2.4	7/1.6	2.5	1.5	1.5	42.7	33.2	1180	500
0.90	100	2.6	7/2.0	3.0	1.5	1.5	53.1	42.4	2150	500
1.27	5	2.1	1/2.5	2.0	1.5	1.0	25.1	18.8	380	1000
1.27	10	2.3	7/1.2	2.0	1.5	1.3	31.3	25.7	670	1000
1.27	20	2.5	7/1.6	2.5	1.5	1.5	45.4	35.8	1140	500
1.27	30	2.7	7/2.0	3.0	1.5	1.5	45.9	45.9	1630	500

The measured values shall be divided by $1/2 \left(\frac{L}{500} + \sqrt{\frac{L}{500}} \right)$ where L is the length in meter of the cable under test.
Length less than 100 meters are considered as 100 meters

TELEPHONE CABLE

CABLE TELEPHONE, POLYETHYLENE INSULATED, MOISTURE BARRIER SHEATHED, UNIT TWIN TYPE, INTEGRAL BEARER FOR AERIAL ERECTION (PEUT IB)

ELECTRICAL CHARACTERISTICS

Size	Conductor Resistance		Mutual Capacitance		Capacitance Unbalance		Insulation Resistance		Dielectric Strength
	Max. Average	Max. for 90% of Cases	Max. Average	Max.	Pair to Pair	Pair to Ground	Min.	Conductor to Conductor	Conductor to Shield
mm	Ω/m	Ω/km	nF/km	nF/km	pF/500m	pF/km	M Ω/km	DCV	DCV
0.40	143	150	52 ± 2		200	574	10000	2000	4000
0.50	91	96	52 ± 2	3% of	200	574	10000	2000	4000
0.63	58	60	52 ± 2	Average	200	574	10000	2000	4000
0.90	28	30	52 ± 2	Value	200	574	10000	2000	4000
1.27	14	15	52 ± 2		200	574	10000	2000	4000

The measured values shall be divided by $1/2(\frac{L}{500} + \sqrt{\frac{L}{500}})$ where L is the length in meter of the cable under test. Length less than 100 meters are considered as 100 meters.

COLOUR SCHEME FOR 5-PAIR AND 10-PAIR UNITS		
Pair Number	Colour of Insulation	
	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

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

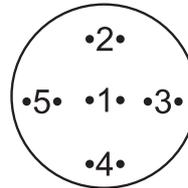
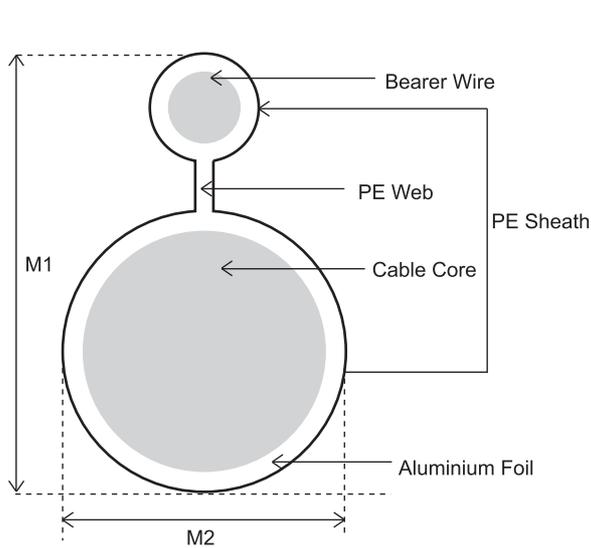
COLOUR OF BINDER TAPES 10 PAIR UNITS			
Unit No.	Colour of Binder	Unit No.	Colour of Binder
1	Blue	11	Blue
1A, 1B			
2	Orange	12	Orange
2A, 2B			
3	Green	13	Green
4	Brown	14	Brown
5	Grey	15	Grey
6	Blue-White	16	Blue-White
7	Orange-White	17	Orange-White
8	Green-White	18	Green-White
9	Brown-White	19	Brown-White
10	Grey-White	20	Grey-White

Unit No. 11-20 only apply to 200 pair cable

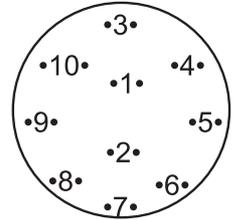
TELEPHONE CABLE

CABLE TELEPHONE, POLYETHYLENE INSULATED, MOISTURE BARRIER SHEATHED, UNIT TWIN TYPE, INTEGRAL BEARER FOR AERIAL ERACKION (PEUT IB)

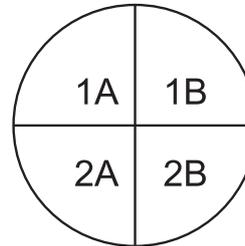
CROSS-SECTION OF PEUT IB CABLE



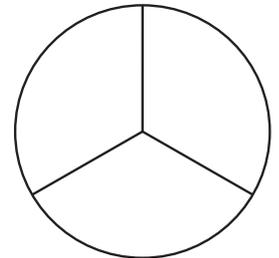
5 Pairs Cable
(Or Sub Unit)



10 Pairs Cable
(Or Sub Unit)

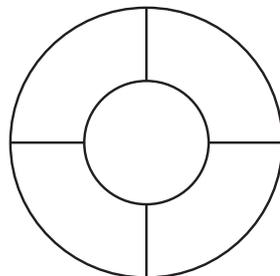


20 Pairs Cable
(Or 20 Pair Unit)
4 X 5 Pair Sub Units

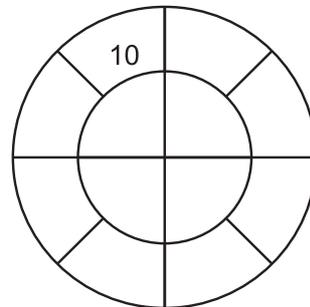


30 Pairs Cable
3 X 10 Pair Sub Units

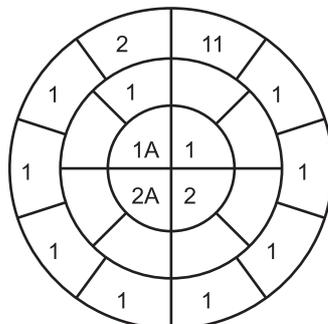
CABLE MAKE-UP



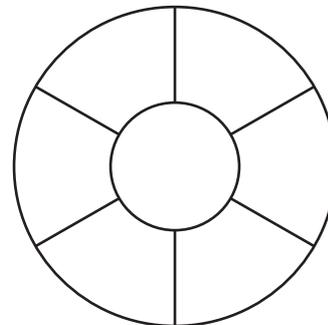
50 Pairs Cable
5 X 10 Pair Sub Units



100 Pairs Cable
Core 1 X 20 Pair Units
Layer 8 X 10 Pair Sub Units



200 Pairs Cable
Core 100 Pair Unit
Layer 10 X 10 Sub Units



400 Pairs Cable
Core 100 Pair Units
Layer 6 X 50 Pair Units