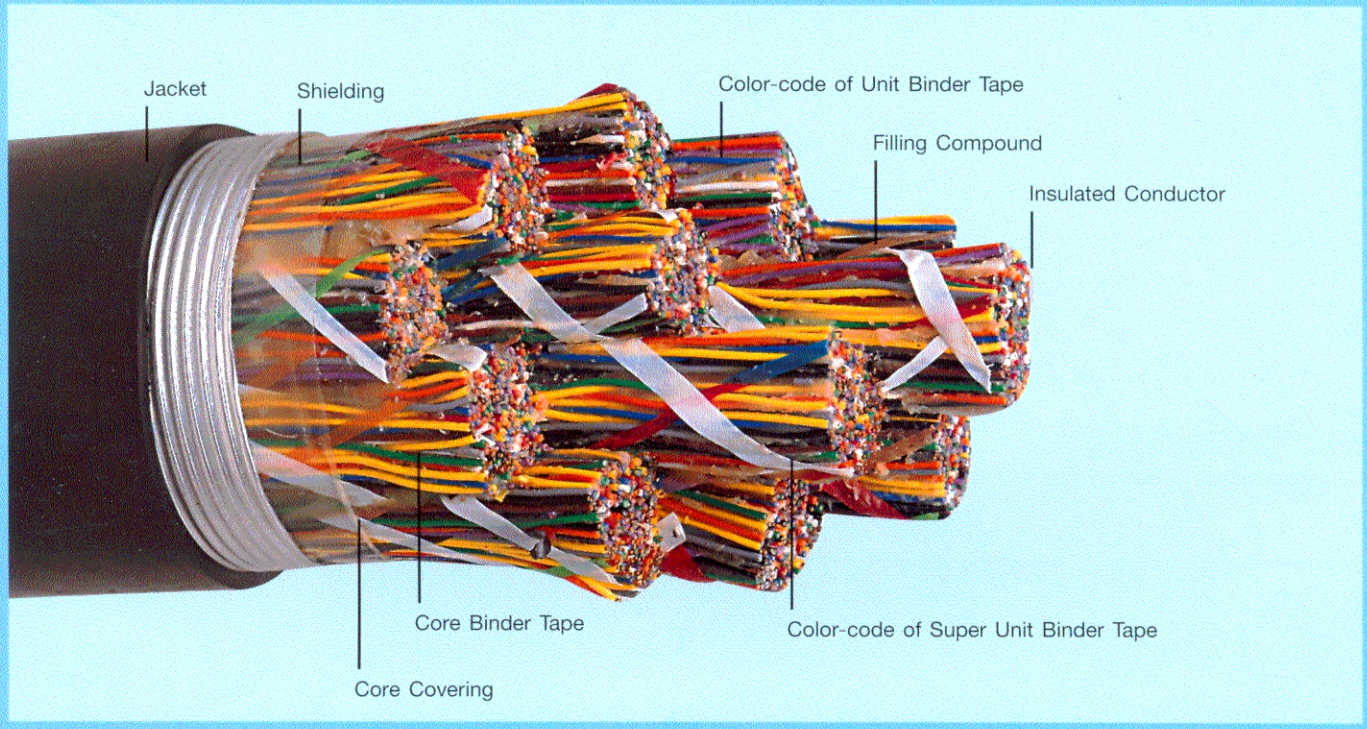
BANGKOK TELECOM CO., LTD.

ISO 9001
QMS01128/379

BTS-M-014

AP-FSF

FOAM / SKIN INSULATION ALPETH SHEATHED, FILLED CABLE



GENERAL

This cable is designed for use as a duct cable in either exchange area service or trunk service. The cable is foam-skin Polyethylene insulated, fully color coded, and fully filled with a filling compound to prevent the penetration and migration of water.

CONSTRUCTION

Conduction : Solid annealed copper wire, 0.40, 0.50, 0.65 and 0.90 mm (26, 24, 22, 19 AWG) in size.

Insulation : Color coded foam/skin high density polyethylene.

Twisted Pairs : The insulated conductors are twisted into pairs with specified color combinations to provide pairs identification.

Cable Assembly : Cables having 25 or fewer pairs : The pairs are assembled in a single group. Cables having more than 25 pairs : The pairs are assembled in units, each unit being identifiable by color coded unit binders.

Identification Tape : A tape, indelibly marked with the following details, shall be laid over the cable core or under the outer lapping tape

(nonhygroscopic dielectric material)

a. Manufacturers Name

b. Year of Manufacture (Duration of two years)

Or the marking shall be printed on the outer lapping tape. The marking shall appear at intervals not more than 50 cm throughout the cable length.

Filling Compound : The interstices between the pairs are filled with a filling compound.

Core covering : Nonhygroscopic dielectric tape.

Shielding : A corrugated polyethylene coated 0.2 mm aluminum tape is applied longitudinally with overlap. The tape is flooded with a flooding compound.

Jacket : High molecular weight, low or medium density polyethylene colored black,.

Length Marker : Each length of cable shall be permanently identified as, manufacturer name, year of manufacturer, type and size of cable, and sequencially numbered length. The marking shall be printed on the outer jacket. An alternate method of marking may be used if acceptable to the Client.

OPTION AND OTHER CONSTRUCTIONS

Cables with an inner jacket, with a compartmental screening tape. Cables having a plasitc-coated aluminum shield bonded to the jacket are available.

Cables of other conductor size or having other mutual capacitance than shown in this catalogue are available on request.

No. of Pairs nominal	Conductor Diameter : 0.40 mm (26 AWG)			Conductor Diameter : 0.50 mm (24 AWG)		
	Overall Dia. approx. (mm)	Cable Wt. approx. (kg/km)	Standard Length (m)	Overall Dia. approx. (mm)	Cable Wt. approx. (kg/km)	Standard Length (m)
10	9	100	1,000	10	87	1,000
15	10	125	1,000	11	164	1,000
25	11	171	1,000	13	231	1,000
50	14	278	1,000	17	388	1,000
100	18	472	1,000	21	680	1,000
200	24	842	1,000	29	1,263	1,000
300	29	1,225	1,000	35	1,834	1,000
400	32	1,579	1,000	39	2,365	500
600	38	2,288	500	47	3,459	500
900	46	3,352	500	56	5,063	500
1,200	53	4,400	500	65	6,679	350
1,500	59	5,411	350	72	8,233	200
1,800	64	6,470	350	78	9,779	200
2,100	69	7,474	250	83	11,317	200
2,400	73	8,473	200	-	-	-
2,700	77	9,467	200	-	-	-
3,000	81	10,460	200	-	-	-

All cable dimensions and weights are subject to manufacturing tolerances. Spare pairs may be included at the manufacturer's discretion.

No. of Pairs nominal	Conductor Diameter : 0.65 mm (22 AWG)			Conductor Diameter : 0.90 mm (19 AWG)		
	Overall Dia. approx. (mm)	Cable Wt. approx. (kg/km)	Standard Length (m)	Overall Dia. approx. (mm)	Cable Wt. approx. (kg/km)	Standard Length (m)
10	11	172	1,000	15	291	1,000
12	12	194	1,000	16	332	1,000
15	13	226	1,000	17	394	1,000
25	15	330	1,000	21	596	1,000
50	20	574	1,000	28	1,098	1,000
75	23	807	1,000	33	1,563	1,000
100	26	1,034	1,000	38	2,042	500
200	36	1,959	1,000	52	3,880	500
300	43	2,869	500	63	5,743	350
400	49	3,732	500	72	5,707	200
600	59	5,468	350	86	10,990	200
900	71	8,060	200	-	-	-
1,200	81	10,572	200	-	-	-

All cable dimensions and weights are subject to manufacturing tolerances. Spare pairs may be included at the manufacturer's discretion.

ELECTRICAL CHARACTERISTICS

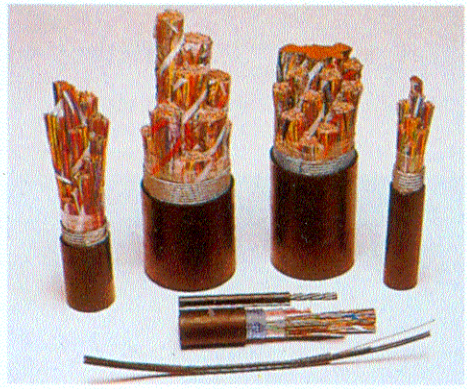
Conductor Diameter mm (AWG)				0.40 (26)	0.50 (24)	0.65 (22)	0.90 (19)
Mutual Capacitance, Average, nF./km			≤ 25 Pairs	52 ± 4			
			> 25 Pairs	52 ± 2			
Mutual Capacitance Deviation, %			rms. Maximum	3			
Capacitance Unbalance pF/km	Pair to pair	6 pairs or less	Individual Maximum	181			
		More than 6 pairs	rms. Maximum	45			
	Pair to Ground	All cables	Individual Maximum	2,625			
		6 pairs and larger	Maximum Average	656			
Far End Crosstalk Loss at 150 kHz, dB/km			rms. Minimum	67.8			
			Individual Minimum	57.8			
Near End Crosstalk Loss M-S at 772 kHz, dB	Within Unit		13 pairs of less	56			
			18 and 25 pairs	60			
	Between Units		Adjacent 13 pairs or less	65			
			Adjacent 25 pairs	66			
			Non-adjacent	81			
Attenution Nominal dB/km at 20°c			at 150 kHz	10.90	7.52	5.72	3.98
			at 772 kHz	19.50	15.40	12.40	8.58
Insulation Resistance, Megohm-km			Minimum	1,600			
High Voltage Test dc for 3 sec., volts			Conductor to Conductor	2,000	2,000	3,500	3,500
			Conductor to Shield	5,000	5,000	10,000	10,000
DC Conductor Resistance, ohms/km, at 20°C			Maximum	144.4	90.2	57.1	28.5
Resisitance Unbalance %			Maximum Average	2.0	1.5	1.5	1.5
			Individual Maximum	5.0	5.0	4.0	4.0

Parameter Variations are Allowed as Follows:
Maximum Number of Pairs with Electrical Variation

Nominal Pair Count	Maximum Number of Pairs with Electrical Variation
up to - 100	1
101 - 300	2
301 - 400	3
401 - 600	4
601 and above	6

Variation Values

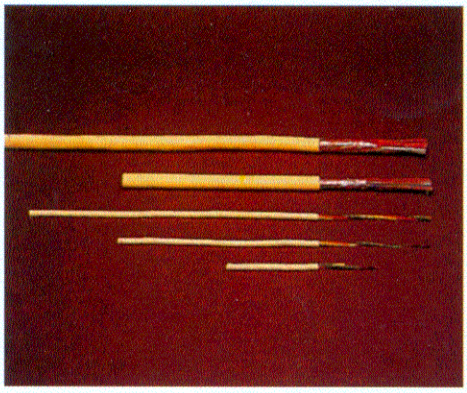
Capacitance Unbalance Pair to Ground, pF/km	Individual Maximum	3,936				
DC Conductor Resistance at 20°c, ohms/km	Maximum	151.6	94.5	60.0	29.9	
Resistance Unbalance, %	Individual Maximum	7.0				
Far End Crosstalk Loss at 150 kHz, dB/km	Individual	51.8				



TELEPHONE CABLE

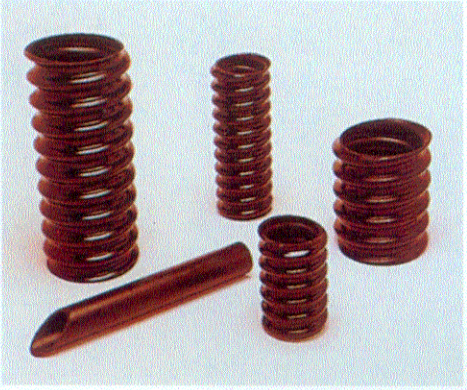
OUTSIDE BUILDING

AP	AP-FSF
AP(8)	ASP-FSF
PAP	AP-FSF-SWA
AP-LOW-LOSS	DSAP-FSF
DSAP-PIC	OTHERS



INSIDE BUILDING

TPVV
TPEV-CC
TIEV-CC
TIEV-P
TJV
OTHERS



TELEPHONE & ELECTRICAL CONDUIT

PE SUB-DUCT
EFLEX PIPE AND ACCESSORY

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