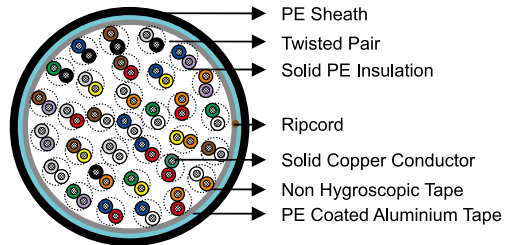# ADDISON

XDSL Connecting Cables

APPLICATION

The cables are designed for XDSL transmission system. The cables are characterized by guaranteed data speeds up to 40MHz.

STANDARDS

• ER.f5.113

PE Sheath
Twisted Pair
Solid PE Insulation

Ripcord
Solid Copper Conductor
Non Hygroscopic Tape
PE Coated Aluminium Tape

CONSTRUCTION

• **Conductors:** Solid annealed bare copper sized 0.5mm as per ASTM B-3/IEC 60228 Class1.
• **Insulation:** Solid polyethylene as per ASTM D 1248/IEC 60708.
• **Twisted Pairs:** Insulated conductors are twisted into pairs with varying lays to minimize crosstalk.
• **Cable Core Assembly:** The pairs are cabled together in layers of 12, 13 & 25 pair unit to form the cable core. Units are identified by colour coded binders.
• **Core Wrapping:** One or more non-hygroscopic polyester tapes are helically or longitudinally laid with an overlap.
• **Screen:** An aluminium polyster foil is applied longitudinally with an overlap.
• **Sheath:** Black low density polyethylene as per BS 6234/IEC 60708.
• **Ripcord:** Nylon ripcord may be placed parallel to the cores to facilitate sheath removal.

ELECTRICAL PROPERTIES

Conductor Diameter	mm	0.5
Maximum Conductor Resistance @20°C	Ω/km	91
Minimum Insulation Resistance @500V DC	MΩ·km	20000
Maximum Resistance Unbalance	%	2
Average Mutual Capacitance	nF/km	52
Maximum Capacitance Unbalance @1KHz pair-to-pair	pF/500m	45
Maximum Capacitance Unbalance @1KHz pair-to-ground	pF/500m	400
Impedance @0.3 – 1MHz	Ω	100+/- 20
Impedance @1 – 40MHz	Ω	100+/- 15
Maximum Average Attenuation @0.1MHz	dB/km	0.81
Maximum Average Attenuation @0.3MHz	dB/km	1.15
Maximum Average Attenuation @0.6MHz	dB/km	1.65

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Maximum Average Attenuation @1MHz	dB/km	2.1
Maximum Average Attenuation @4MHz	dB/km	4.3
Maximum Average Attenuation @10MHz	dB/km	6.6
Maximum Average Attenuation @16MHz	dB/km	8.2
Maximum Average Attenuation @20MHz	dB/km	9.2
Maximum Average Attenuation @31.25MHz	dB/km	11.8
Maximum Average Attenuation @40MHz	dB/km	13.9
Minimum Return Loss @1-20MHz	dB/100m	23
Minimum Return Loss @20-40MHz	dB/km	23-10log (f/20)
Minimum ELFEXT pair-to-pair @0.16MHz	dB	69
Minimum ELFEXT pair-to-pair @1MHz	dB	55
Minimum ELFEXT pair-to-pair @20MHz	dB	29
Minimum ELFEXT pair-to-pair @40MHz	dB	23
Minimum NEXT pair-to-pair @0.16MHz	dB	68
Minimum NEXT pair-to-pair @1MHz	dB	59
Minimum NEXT pair-to-pair @20MHz	dB	39
Minimum NEXT pair-to-pair @40MHz	dB	35
Dielectric Strength	dB	
Conductor to Conductor 3secs	V DC	3000
Conductor to Screen 3secs	V DC	5000

MECHANICAL AND THERMAL PROPERTIES

Temperature range during operation (fixed state): -30°C – +70°C

Temperature range during installation (mobile state): -20°C – +50°C

Minimum bending radius: 10 x Overall Diameter

COLOUR CODE

Standard colour code is per ANSI/ICEA S-80-576 given in Colour Code Chart.

DIMENSIONS AND WEIGHT

Cable Code	Number of Pairs/Quads	Nominal Insulation Thickness mm	Nominal Sheath Thickness mm	Nominal Overall Diameter mm	Nominal Weight kg/km
TP113-2Y(St)Y-26P05-XDSL	26	0.2	0.9	18.5	265
TP113-2Y(St)Y-51P05-XDSL	51	0.2	1.0	24.2	460
TP113-2Y(St)Y-101P05-XDSL	101	0.2	1.1	31.5	790
TP113-2Y(St)Y-202P05-XDSL	202	0.2	1.2	41.5	1415