

## POLYETHYLENE INSULATED SELF SUPPORTING AERIAL TELEPHONE CABLE



These cables are used for junction network is exchange area for Aerial installation. These cables are generally based on REA and Pakistan Telecommunication Company Limited Specification.

## CABLE CONSTRUCTION

### CONDUCTOR:

- ♦ Fully annealed high quality solid copper, the conductor sizes are 0.4, 0.5, 0.6 & 0.9 mm.

### INSULATION:

- ♦ Colour high molecular Weight High-Density Polyethylene (HDPE)

### COLOUR CODING:

- ♦ Colour are fully colour coded in accordance with PIC even count colour code.

### PAIRING:

- ♦ Two coloured insulated conductors are uniformly twisted together to form a pair, Varying lay length is designed to minimize the cross talk and capacitance unbalance.

### STRANDING UNITING:

- ♦ Twisted pairs are assembled into unit of 12, 13, 25, 50, 100 pairs, when desired for lay-up reason the units are divided into two or more sub-units, which are bind with durably coloured polyethylene Tapes to from a compact and circular cable.

### CORE COVERING:

- ♦ The core is wrapped with non-hygroscopic and dielectric polyester Tape with suitable overlap.

### JACKET:

- ♦ Black High Molecular Weight Low Density Polyethylene (LDPE)

**SUSPENSION STRAND:**

- ♦ Extra high strength of galvanized steel wires strands use as a support strand to from the shape as defined.

**IDENTIFICATION:**

- ♦ An Identification Tape durable marked with the Manufacturer’s Name, year of Manufacturing, Contract Number, Cable size & Type, if required, is placed under the Core Covering Tape. Alternatively, these details may be printed on the outer jacket of cable with length marking.

**UNIT IDENTIFICATION / COLOR SCHEME FOR 25 PAIR UNIT**

Pair No.	Color	
	Tip	Ring
01		Blue
02		Orange
03		Green
04		Brown
05		Grey
06	Red	Blue
07	Red	Orange
08	Red	Green
09	Red	Brown
10	Red	Grey
11	Black	Blue
12	Black	Orange
13	Black	Green
14	Black	Brown
15	Black	Grey
16		Blue
17	Yellow	Orange
18	Yellow	Green
19	Yellow	Brown
20	Yellow	Grey
21	Yellow	Blue
22	Purple	Orange
23	Purple	Green
24	Purple	Brown
25	Purple	Grey

## Physical Dimension

Conductor Diameter		0.5 mm			0.6mm	
Number of Pairs	Outer Diameter MM	Normal Weight Kg / Km (Approx)	Standard Length Meters	Outer Diameter MM	Normal Weight Kg / Km (Approx)	Standard Length Meters
10	9.8 x 17.6	169	1000	12.1 x 19.9	197	1000
20	13.2 x 21.0	226	1000	14.9 x 22.7	279	1000
30	15.0 x 22.8	285	1000	17.2 x 26.5	400	1000
50	17.8 x 27.1	431	1000	20.8 x 30.1	561	1000
100	23.2 x 32.5	698	500	26.9 x 36.2	972	500

## Electric Characteristics

Conductor Resistance at 20 °C ( Ω / Km)		92	63
Mutual Capacitance at 1000 Hz (nF / Km)	Maximum Individual	52 ± 4 nF	52 ± 4 nF
Capacitance Unbalance (pF / 300 M) - Pair to Pair	Maximum Average	52 ± 3 nF	52 ± 3 nF
	Maximum Average /300 M	25 pF	25 pF
	Maximum Individual /300 M	100 pF	100 pF
	- Pair to Ground		
	Maximum Average /300 M	175 pF	175 pF
	Maximum Individual /300 M	800 pF	800 pF
Insulation Resistance at 500 v DC (MΩ / km)	Minimum	5000 MΩ	5000 MΩ
	Maximum b/w pair	10 GΩ	10 GΩ
High Voltage Test DC KV	- Conductor to Conductor	3 KV	3 KV
	- Conductor to Shield	10 KV	10 KV
Cross Talk Coupling Loss at 150 KHz	Minimum	73 dB	73 dB
Attenuation (dB / km) 1 KHz		1.50	1.25
	150 KHz	8.40	6.80
	772 KHz	16.50	13.90
	1024 KHz	19.40	16.10
	1500 KHz	23.60	19.50