



# Category 6 U/UTP PVC and LSZH Communications Cable

## Product Type:

Data Cable

## Application:

Concordia Category 6 U/UTP cables are designed to support horizontal networking applications over channel distances up to 100 metres. The cable meets the specified performance for Category 6 U/UTP and supports all CLASS E applications as defined within ISO/IEC 11801 2<sup>nd</sup> Edition.

## Standards:

- ISO/IEC 11801 2<sup>nd</sup> Edition
- TIA/EIA 568-C.2
- EN 50173, EN 50288-3-1
- IEC 61156-5, IEC60332-1-2
- For LSZH cables : IEC61034, IEC60754-2

## Construction:

Conductor:	Solid plain annealed copper
Insulation:	Polyethylene
Cable:	8 insulated wires formed into 4 pairs. The 4 pairs are subsequently cabled together around a polyethylene cross filler to form a cohesive unit.
Sheath:	PVC , Grey LSZH : Violet
Diameter:	5.8mm

### Electrical properties at 20°C

Characteristic Impedance (1-100MHz)	100 ± 15Ω
DC loop resistance	≤ 19Ω/100m
Resistance unbalance	≤ 2%
Capacitance unbalance to earth	≤ 1600 pF/km
Nominal velocity of propagation	67%
Delay skew	≤ 45ns/100m
Propagation delay (Nominal)	≤ 552ns/100m
Test voltage (d.c. for 1 minute) Conductor/Conductor	1000V
Insulation resistance (500V d.c)	≥ 500MΩ.km
Coupling attenuation	≥ 40dB

### Transmission line performance at 20°C

Frequency MHz	Attenuation dB/100m	NEXT dB	ACR dB/100m	PSNEXT dB	ELFEXT dB/100m	PSELFEXT dB/100m	Return Loss
1	2.1	74.3	72.2	72.3	68	65	20.0
4	3.8	65.3	61.5	63.3	56	53	23.0
10	6.0	59.3	53.3	57.3	48	45	25.0
16	7.6	56.2	48.6	54.2	44	41	25.0
20	8.5	54.8	46.3	52.8	42	39	25.0
62.5	15.5	47.4	31.9	45.4	32	29	21.5
100	19.9	44.3	24.4	42.3	28	25	20.1
155.5	25.3	41.4	16.1	39.4	24	21	18.8
250	33.0	38.3	5.3	36.3	20	17	17.3

### Mechanical Characteristics:

Temperature Range:	
Operation	-20°C to + 60°C
Installation	0°C to +50°C
Storage	-20°C to + 70°C
Minimum bend radii:	
Installation	8 x Cable Diameter
Installed	4 x Cable Diameter
Maximum tensile force:	
During Installation	100N

**Fire Performance:**

Category 6 U/UTP PVC cables exceed the requirements of:

- IEC 60332-1-2

Category 6 U/UTP LSZH cables exceed the requirements of:

- IEC 60332-1-2
- IEC61034
- IEC60754-2

**Other Relevant Information:**

- Pair colour code:
  - Pair 1: Orange and White/Orange
  - Pair 2: Blue and White/Blue
  - Pair 3: Brown and White/Brown
  - Pair 4: Green and White/Green

**Packaging:**

Part No.	Description	Packaging
CAT6ULCAVI305	Concord Cat6 U/UTP LSZH Violet	305m reel
CAT6UPCAGY305	Concord Cat6 U/UTP PVC Grey	305m reel