

## UTP INDOOR DATA CABLES CATEGORY 3, PVC SHEATH



Data cable



Flame retardant



ROHS compliant

### STANDARDS

Construction: TIA/EIA-568-B, ISO/IEC 11801

Complementary: UNE 50265-1-2

### DESCRIPTION AND APPLICATION

Indoor telecommunication cables up to 100 pairs, conductors of 0.51 mm, PE insulation, stranded in units of 25 pairs. Grey unshielded (UTP) PVC sheath. Indoor installation for data transmission to the horizontal transmission system or backbone. Category 3 or class A, B or C as defined by the EIA / TIA 568A and ISO / IEC 11801 standard. Flame retardant.

### CONSTRUCTION

- **Conductors:** Annealed copper, diameter of 0.51 mm.
- **Insulation:** Solid HDPE.
- **Cabling element:** Pairs.
- **Lay-up.** Up to 25 pairs in layers. Cables above in units of 25 pairs.
- **Sheath:** Grey PVC.
- **Sheath marking:** The outer sheath shall be marked at regular intervals with the following information:
  - Name of Manufacturer / year / Length markings
  - Other type of markings is also possible according to the customer



### ELECTRICAL CHARACTERISTICS (20°C)

|   |       |
|---|-------|
|   | 0,51  |
| Maximum conductor resistance ( $\Omega/km$ )  | 93,8  |
| Maximum Resistance unbalance (%) $100 \times (R_{max} - R_{min}) / (R_{min} + R_{max})$ | 5,0 % |
| Minimum insulation resistance ( $M\Omega \times km$ , 15°C, 500 V)                      | 20000 |
| Maximum Mutual capacitance ( $nF/km$ , 800 Hz)  | 66    |
| Capacitance unbalance pair-earth ( $pF/100m$ , 800 Hz)                                  | 330   |
| Dielectric strength conductor-conductor (Vdc, 3 s)                                      | 2500  |

All drawings, designs, specifications and particulars of weights, dimensions, etc. in this documentation are only indicative and must not be considered contractual.

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| <b>TRANSMISSION CHARACTERISTICS (20°C)</b>  |  | 0,51  |
|---|--|---|
| <i>Characteristic impedance (<math>\Omega</math>, 1-16 MHz)</i>                                   |  | 100±15  |
| <i>Structural Return loss SRL (dB, 1-16 MHz). Minimum value</i>                                   |  | 12  |
| <ul style="list-style-type: none"> <li>• From 1 to 10 MHz</li> <li>• From 10 to 16 MHz</li> </ul> |  | $SRL > 12 - 10 \log\left(\frac{f}{10}\right)$         |
| Note: f in MHz  |  |   |
| <i>Insertion loss IL (dB/km, 772 KHz a 16 MHz)</i>  |  | $IL < 2,32\sqrt{f} + 0,238f$                          |
| Note: f in MHz  |  |   |
| <i>Minimum Crosstalk NEXT PS (PSNEXT, dB/100 m, 772 KHz a 16 MHz, groups of 25 pairs)</i>         |  | $PSNEXT (25) > 23 - 15 \log\left(\frac{f}{16}\right)$ |
| Note: f in MHz  |  |   |

### MECHANICAL CHARACTERISTICS

Temperature range: from -25° C to +65° C

Minimum bending radius: 12 x R<sub>cable</sub>

### DIMENSIONS AND WEIGHTS

| Diameter : 0.51 mm |         |                 |                        |            |      |
|--------------------|---------|-----------------|------------------------|------------|------|
| Code               | # Pairs | Cable diam (mm) | Weight approx. (kg/km) | Length (m) | Drum |
| EA8302051002502N   | 25      | 9.7             | 148                    | 1000       | 08   |
| EA8302051005002N   | 50      | 12.8            | 272                    | 1000       | 08   |
| EA8302051010002N   | 100     | 17.8            | 537                    | 1000       | A2   |

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