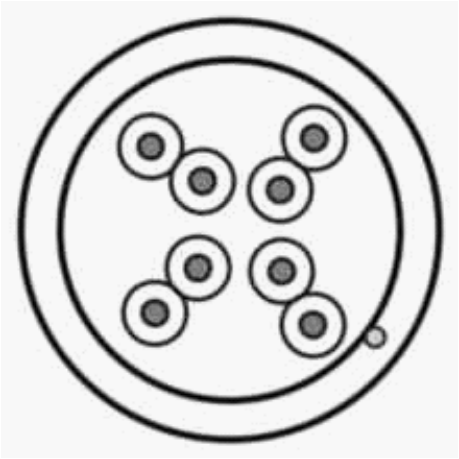

# 2425D

**Part Number:** 2425D

Enhanced Category 6 Nonbonded-Pair Cables

## Product Description

CAT6+ (300MHz), 4-Pair, U/UTP Unshielded, Premise Horizontal Cable, 23 AWG Solid Bare Copper Conductors, Polyolefin Insulation, LSZH Jacket (passes bundle flame test IEC60332-3-25)

## Product Specifications

## Technical Specifications

| | |
|---|---|
| **Application 1:** | Horizontal and building backbone cable |
| **Application 2:** | Support current and future Category 6 and 5e applications, such as: 1000Base - T (Gigabit Ethernet), 100 Base - T, 10 Base - T, FDDI, ATM |

## Construction and Dimensions

**Conductor:**

| Element | AWG | Stranding | Material | No. of Pairs |
|---|---|---|---|---|
| Individual pair | 24 | Solid | Bare copper | 4 |

| | |
|---|---|
| **Min Elongation at Breakof Conductors:** | 10 % |

**Insulation:**

| Element | Type | Material | Nominal Diameter |
|---|---|---|---|
| Individual pair | Dielectric | Polyethylene | 1 mm |

| | |
|---|---|
| **Min Elongation at Breakof Insulation:** | 100 % |

**Color Chart 1:**

| Number | Color |
|---|---|
| Pair 1 | White/Blue & Blue |
| Pair 2 | White/Orange & Orange |
| Pair 3 | White/Green & Green |
| Pair 4 | White/Brown & Brown |

**Outerjacket 1:**

| Material | Color | Nominal Diameter | Diameter +/- Tolerance | Nominal Wall Thickness | Ripcord |
|---|---|---|---|---|---|
| FRNC / LSNH | Blue, purple | 6.6 mm | 0.3 mm | 1.15 mm | Yes |

| | |
|---|---|
| **Min Elongation at Breakof Jacket:** | 100 MPa |
| **Min Tensile Strength of Jacket:** | 9 lbs |

## Electrical Characteristics

**Conductor DCR:**

| Max. Conductor DCR | Max DCR Unbalanced Between Pairs | Max. DCR Unbalanced Within Pair |
|---|---|---|
| 93.8 Ohm/100m | 4 % | 2 Ohm |

**Capacitance:**

| Max. Capacitance Unbalanced | Max. Mutual Capacitance |
|---|---|
| 1,600 pF/m | 56 pF/m |

| | |
|---|---|
| **Min Insulation Resistance:** | 5000 mOhm/1000ft |

**Impedance:**

| Nominal Characteristic Impedance |
|---|
| 100 mOhm/ft |

**Delay:**

| Max. Delay Skew | Nominal Velocity of Propagation (VP) |
|---|---|
| 25 ns/100m | 70 ns/100m |

**High Freq:**

| Element | Frequency [MHz] | Max. Insertion Loss (Attenuation) | Min. NEXT | Min. PSNEXT | Min. ACR | Min. PSACR | Min. ACRF (ELFEXT) | Min. PSACRF (PSELFEXT) | Min. RL (Return Loss) | Min. TCL | Min. ELTCTL |
|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 MHz | 2 db/100m | 75.3 dB | 73.3 dB | 73.3 dB | 71.3 dB | 70.8 dB | 67.8 dB | 20 dB | 40 dB | 35 dB |
| | 4 MHz | 3.7 db/100m | 66.3 dB | 64.3 dB | 62.6 dB | 60.6 dB | 58.8 dB | 55.8 dB | 23 dB | 40 dB | 23 dB |
| | 10 MHz | 5.8 db/100m | 61.8 dB | 59.8 dB | 56 dB | 54 dB | 50.8 dB | 47.8 dB | 25 dB | 40 dB | 15 dB |
| | 16 MHz | 7.4 db/100m | 58.6 dB | 56.6 dB | 51.2 dB | 49.2 dB | 46.7 dB | 43.7 dB | 25 dB | 38 dB | 10.9 dB |
| | 20 MHz | 8.3 db/100m | 57.1 dB | 55.1 dB | 48.8 dB | 46.8 dB | 44.8 dB | 41.8 dB | 25 dB | 37 dB | 9 dB |
| | 31.2 MHz | 10.4 db/100m | 54 dB | 52 dB | 43.6 dB | 41.6 dB | 40.9 dB | 37.9 dB | 23.6 dB | 35.1 dB | 5.1 dB |
| | 62.5 MHz | 15 db/100m | 49.1 dB | 47.1 dB | 34.1 dB | 32.1 dB | 34.9 dB | 31.9 dB | 21.5 dB | 32.6 dB | |
| | 100 MHz | 19.3 db/100m | 45.8 dB | 43.8 dB | 26.5 dB | 24.5 dB | 30.8 dB | 27.8 dB | 20.8 dB | 30 dB | |
| | 200 MHz | 28.3 db/100m | 40.9 dB | 38.9 dB | 12.6 dB | 10.6 dB | 22.8 dB | 21.8 dB | 19.5 dB | 27 dB | |
| | 250 MHz | 32.1 db/100m | 39.3 dB | 37.3 dB | 7.2 dB | 5.2 dB | 22.8 dB | 19.8 dB | 18 dB | 26.5 dB | |
| | 300 MHz | 35.6 db/100m | 38.1 dB | 36.1 dB | 2.5 dB | 0.5 dB | 21.3 dB | 18.3 dB | 17.5 dB | | |

): Limits below 4MHz are for information only.

**Current:**

| Max. Recommended Current |
|---|
| 1.5 A |

**Voltage:**

| Voltage Rating |
|---|
| 300 dB |

## Use

| | |
|---|---|
| **Burning Load:** | 600 kJ/m |
| **Max Recommended Pulling Tension:** | 80 lbs |

## Safety

| | |
|---|---|
| **ISO/IEC Flammability:** | IEC 60332-3-25 |
| **Amt of Halogen Acid Gas; MaxConductivity:** | 10 µS/mm |
| **Amt of Halogen Acid Gas; Min pH:** | 4.3 |

| | |
|---|---|
| **Smoke Density; Min Transmittance:** | 60 % |

## Temperature Range

| | |
|---|---|
| **Installation Temp Range:** | 0 to +50 °C |
| **Operating Temp Range:** | -20 to +75 °C |

## Mechanical Characteristics

| | |
|---|---|
| **Min Bend Radius During Installation:** | 52 mm |
| **Min Bend Radius During Operation:** | 26 mm |

## Part Number

## Standards

| | |
|---|---|
| **ISO/IEC Compliance:** | ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010) |
| **ANSI Compliance:** | ANSI/TIA/EIA 568-B.2-1 (2002) |

## History

| | |
|---|---|
| **Revision Date:** | 41312 |
| **Revision Number:** | 3 |

## Product Variants

| Part Number | Color | Put-Up Type | Length |
|---|---|---|---|
| 2425D.061000 | BLUE | Reel | 1000 m |
| 2425D.06305 | BLUE | Reel | 305 m |
| 2425D.06500 | BLUE | Reel | 500 m |
| 2425D.071000 | PURPLE | Reel | 1000 m |
| 2425D.07305 | PURPLE | Reel | 305 m |
| 2425D.08500 | BLUE | Reel | 500 m |

Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.