

**Contact**

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## LANmark-350 Plenum

Berk-Tek's LANmark-350 Premium Category 5e UTP cables are ideally suited to support 100BASE-TX Ethernet. Tested up to 450 MHz, the guaranteed performance of this cable far exceeds the ANSI/TIA/EIA-568-B.2 and ISO/IEC 11801 Category 5e horizontal cable requirements for PSNEXT, attenuation, return loss, attenuation-to-crosstalk ratio (ACR) and impedance.

### Description

#### Construction

Bare copper wire insulated with FEP. Two insulated conductors twisted together to form a pair and four such pairs cabled to form the basic unit jacketed with flame-retardant PVC.

#### Standards

- North American: ANSI/TIA/EIA-568-B.2 Category 5e, UL 444 and C22.2 No.214-02
- International: ISO/IEC 11801-2nd Edition Category 5, EU Directive 2002/95/EC (RoHS)

#### Flame Rating

- Plenum - NFPA 262, CMP
- UL Listed

#### Applications

Berk-Tek's LANmark-350 Premium Category 5e UTP cable is intended for high speed data applications up to 350 MHz including:

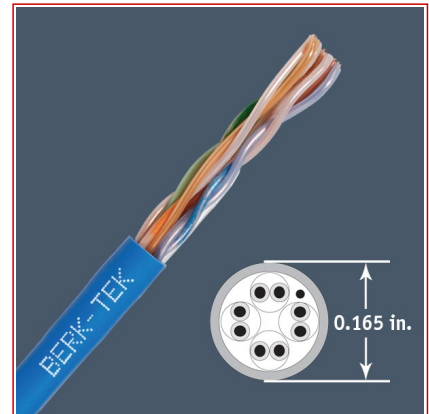
- IEEE 802.3 1000BASE-T 1 Gb/s
- ATM 155 Mb/s 155 Mb/s
- IEEE 802.3 100BASE-TX 100 Mb/s
- CDDI 100 Mb/s
- IEEE 802.3 10BASE-T 10 Mb/s

#### Features

- Small, round design
- ETL verified to TIA/EIA-568-B.2 and ISO/IEC 11801

#### Benefits

- Reliably supports 100BASE-TX Ethernet
- Reduced installation costs and maintenance
- Characterized to 450 MHz, 350 MHz greater than standard
- Lower bit error rates, increases network efficiency and uptime



#### Standards

**National TIA/EIA-568-B.2**

## LANmark-350 Plenum

### Characteristics

|                                     |              |
|-------------------------------------|--------------|
| <b>Construction characteristics</b> |              |
| Type of cable                       | UTP          |
| <b>Dimensional characteristics</b>  |              |
| Length per reel                     | 1000.0 ft    |
| Number of pairs                     | 4            |
| <b>Usage characteristics</b>        |              |
| Field of application                | Indoor       |
| Category                            | Cat. 5e      |
| Fire safety                         | Plenum Rated |

### Technical Data

| Technical Data - Physical                     |                    |        | Color Code                |                     |               |
|---|--------------------|--------|---------------------------|---------------------|---------------|
|   |                    |        | <b>Pair-1</b>             | <b>White/Blue</b>   | <b>Blue</b>   |
| <b>Conductor</b>                              | 24 AWG Bare Copper |        | <b>Pair-2</b>             | <b>White/Orange</b> | <b>Orange</b> |
| <b>Conductor diameter—in. (mm)</b>            | 0.02               | (0.52) | <b>Pair-3</b>             | <b>White/Green</b>  | <b>Green</b>  |
| <b>Insulated Conductor Diameter- in. (mm)</b> | 0.035              | (0.89) | <b>Pair-4</b>             | <b>White/Brown</b>  | <b>Brown</b>  |
| <b>Cable diameter—in. (mm)</b>                | 0.165              | (4.2)  |                           |                     |               |
| <b>Nominal cable weight—lb./kft. (kg/km)</b>  | 21                 | (31)   | <b>Temperature Rating</b> |                     |               |
| <b>Max. installation tension—lb. (N)</b>      | 25                 | (110)  | <b>Installation</b>       | 0°C to +50°C        |               |
| <b>Min. bend radius—in. (mm)</b>              | 1                  | (25.4) | <b>Operation</b>          | -20°C to +60°C      |               |

### Technical Data - Parametric Measurements

|  |  |
|--|--|
| <b>Mutual Capacitance</b>                | 4.4 nF/100 m nom.  |
| <b>DC resistance</b>                     | 9.38 Ohms/100 m max.   |
| <b>Skew</b>                              | 25 ns/100 m max.   |
| <b>Pair to ground Unbalance</b>          | 330 pF/100 m max.  |
| <b>Velocity of Propagation</b>           | 72% nom.   |
| <b>Input Impedance</b>                   | 100 ± 13% 0.772-100 MHz 100 ± [13+15log (F/100)] 100-350 MHz |
| <b>DC Resistance Unbalance of a Pair</b> | 5% max.  |

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### Technical Data - Electrical Characteristics

| FREQ  | SRL  |         | RL   |         | INSERTION LOSS |         | PS-NEXT |         | NEXT |         |
|-------|------|---------|------|---------|----------------|---------|---------|---------|------|---------|
|       | (dB) |         | (dB) |         | (dB/100m)      |         | (dB)    |         | (dB) |         |
| MHz   | min. | typical | min. | typical | max.           | typical | min.    | typical | min. | typical |
| 1     | 25.5 | 44.7    | 20.0 | 38.2    | 2.0            | 1.7     | 68.3    | 82.7    | 70.3 | 89.1    |
| 4     | 25.5 | 44.9    | 23.3 | 36.0    | 4.0            | 3.5     | 59.9    | 73.3    | 61.9 | 81.9    |
| 10    | 25.5 | 47.7    | 25.0 | 39.0    | 6.4            | 5.6     | 53.3    | 65.9    | 55.3 | 75.1    |
| 20    | 25.5 | 45.9    | 25.5 | 47.5    | 9.2            | 8.1     | 48.8    | 60.6    | 50.8 | 66.3    |
| 31.25 | 24.4 | 55.3    | 24.4 | 43.0    | 11.6           | 10.1    | 45.9    | 59      | 47.9 | 65      |
| 62.5  | 22.7 | 41.6    | 22.7 | 39.5    | 16.8           | 14.6    | 41.4    | 55.7    | 43.4 | 62.1    |
| 100   | 21.5 | 37.3    | 21.5 | 35.5    | 21.7           | 18.7    | 38.3    | 51.4    | 40.3 | 57.5    |
| 200   | 19.8 | 43.1    | 19.8 | 46.5    | 32.1           | 27.2    | 33.8    | 47.7    | 35.8 | 53.2    |
| 300   | 18.8 | 36.1    | 18.8 | 35.7    | 40.5           | 33.9    | 31.2    | 45.2    | 33.2 | 53.4    |
| 350   | 18.4 | 35.4    | 18.4 | 35.0    | 44.4           | 36.9    | 30.2    | 42.2    | 32.2 | 48.8    |
| 400   | 18.1 | 38.0    | 18.1 | 34.4    | 48.0           | 39.6    | 29.3    | 39.4    | 31.3 | 45.6    |
| 450   | 17.8 | 34.7    | 17.8 | 34.5    | 51.5           | 42.4    | 28.5    | 36.2    | 30.5 | 43.4    |

### Technical Data - Electrical Characteristics

| FREQ  | ACR       |         | PS-ACR    |         | ELFEXT |         | PS-ELFEXT |         |
|-------|-----------|---------|-----------|---------|--------|---------|-----------|---------|
|       | (dB@100m) |         | (dB@100m) |         | (dB)   |         | (dB)      |         |
| MHz   | min.      | typical | min.      | typical | min.   | typical | min.      | typical |
| 1     | 68.3      | 83      | 66.3      | 80.8    | 66.8   | 86.2    | 63.8      | 77      |
| 4     | 57.3      | 71      | 55.3      | 69.6    | 54.7   | 73.2    | 42.7      | 64.8    |
| 10    | 48.9      | 61      | 46.9      | 59.8    | 46.8   | 65.5    | 44.8      | 57      |
| 20    | 41.6      | 55      | 39.6      | 52      | 40.7   | 60.8    | 38.7      | 51.5    |
| 31.25 | 36.3      | 50      | 34.3      | 48.1    | 36.9   | 56.6    | 34.9      | 47.8    |
| 62.5  | 26.6      | 42      | 24.6      | 40      | 30.8   | 50.5    | 28.8      | 42.1    |
| 100   | 18.6      | 33      | 16.6      | 31.2    | 26.8   | 45.5    | 24.8      | 38.5    |
| 200   | 3.7       | 21.2    | 1.7       | 18.4    | 20.7   | 44.7    | 17.7      | 37.4    |
| 300   | —         | 9.6     | —         | 8.3     | 17.2   | 38.1    | 14.2      | 31.9    |
| 350   | —         | 4.9     | —         | 1.9     | 15.9   | 36.4    | 12.9      | 30.6    |
| 400   | —         | -1.8    | —         | -4      | 14.7   | 33.4    | 11.7      | 27.5    |
| 450   | —         | -8.9    | —         | -10.6   | 13.7   | 36.7    | 10.7      | 28.3    |

IMPORTANT: Berk-Tek performance guarantees are based on swept-frequency testing and apply to all frequencies for the entire specified frequency range and are not limited to the table of data shown which are presented to demonstrate our guarantees at "representative" frequencies. Values above 350 MHz are for engineering information. Limited combustible version also available. Other jacket colors available.

### Product List



☎ = Make to order, 📦 = Make to stock

| Part Number | Description        | Colour | Packaging |
|-------------|--------------------|--------|-----------|
| 📦 10032059  | LANmark-350 Plenum | Yellow | Reel      |

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## LANmark-350 Plenum

| Part Number  | Description        | Colour | Packaging     |
|--|--------------------|--------|---------------|
|  10032060   | LANmark-350 Plenum | Yellow | Box           |
|  10032058   | LANmark-350 Plenum | Yellow | Reel in a box |
|  10032064   | LANmark-350 Plenum | Blue   | Reel          |
|  10032065   | LANmark-350 Plenum | Blue   | Box           |
|  10032063   | LANmark-350 Plenum | Blue   | Reel in a box |
|  10032085   | LANmark-350 Plenum | Green  | Reel          |
|  10032086   | LANmark-350 Plenum | Green  | Box           |
|  10032084   | LANmark-350 Plenum | Green  | Reel in a box |
|  10032078   | LANmark-350 Plenum | Grey   | Reel          |
|  10032079   | LANmark-350 Plenum | Grey   | Box           |
|  10032077   | LANmark-350 Plenum | Grey   | Reel in a box |
|  10032087   | LANmark-350 Plenum | Violet | Reel          |
|  10032088   | LANmark-350 Plenum | Violet | Box           |
|  10047430   | LANmark-350 Plenum | Violet | Reel in a box |
|  10032100   | LANmark-350 Plenum | Brown  | Reel          |
|  10032101   | LANmark-350 Plenum | Brown  | Box           |
|  10032099   | LANmark-350 Plenum | Brown  | Reel in a box |
|  10032068  | LANmark-350 Plenum | Pink   | Reel          |
|  10032069 | LANmark-350 Plenum | Pink   | Box           |
|  10032067 | LANmark-350 Plenum | Pink   | Reel in a box |
|  10032071 | LANmark-350 Plenum | White  | Reel          |
|  10032072 | LANmark-350 Plenum | White  | Box           |
|  10032070 | LANmark-350 Plenum | White  | Reel in a box |
|  10032081 | LANmark-350 Plenum | Orange | Reel          |
|  10032082 | LANmark-350 Plenum | Orange | Box           |
|  10032080 | LANmark-350 Plenum | Orange | Reel in a box |
|  10032075 | LANmark-350 Plenum | Red    | Reel          |
|  10032076 | LANmark-350 Plenum | Red    | Box           |
|  10032074 | LANmark-350 Plenum | Red    | Reel in a box |
|  10032102 | LANmark-350 Plenum | Black  | Reel          |
|  10034514 | LANmark-350 Plenum | Black  | Box           |
|  10067869 | LANmark-350 Plenum | Black  | Reel in a box |

 = Make to order,  = Make to stock

### Selling delivery information

PLEASE NOTE: In the interest of product improvement, Berk-Tek, a Nexans company may make improvements or changes in the products, the programs or services described at any time without notice. Additionally, the information contained herein may include typographical errors or technical inaccuracies. Changes will be periodically made to address any such issues.