

## LANmark-6 Cable

LANmark-6 U/UTP PVC 305m Box  
 Nexans ref.: N100.617

- Complies to all Category 6 cable standards
- Supports Class E applications
- Central cross member maintains geometry and performance
- Tested up to 350MHz

### Description

#### Application

Nexans LANmark-6 cables are the ideal solution for most of today's network requirements in normal office environments. They are manufactured and tested to the latest Category 6 specifications defined in the International and American cable standards and are designed to meet the quality and performance criteria needed to support all applications up to 250 MHz.

- 10baseT Ethernet
- 100baseTX Fast Ethernet
- 1000baseTX Gigabit Ethernet
- 155 MBit ATM
- 622 MBit ATM
- 1.2 Gbit ATM
- Future class E applications

#### Design

The LANmark-6 cables have AWG 23 solid copper wires and comply with IEC 60228.

The PE central cross filler helps maintain the stability of the cable geometry and reduces the risk of a reduction in performance when bending the cable.

The cables are available with a Dark Grey PVC or an Orange LSZH sheath. Both versions have flame retardant properties compliant with IEC 60332-1.

#### Performance

Tested to 350 MHz and with guaranteed performance to 250 MHz, Nexans LANmark-6 cables exceed the requirements of the International, European and American cable standards, including ISO/IEC 11801, IEC 61156-5, EN 50173, EN 50288 and TIA/EIA 568-C.2.

#### Installation

To support the correct set-up of hand held analysers for installation testing, the actual cable NVP value is given in the cable's print legend.

#### Guarantees

The LANmark-6 cable performance is guaranteed to meet or exceed the requirements of the above mentioned standards.

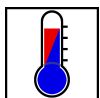
Traceability codes on both cable and packaging ensure quality validation of the



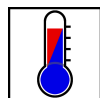
## LANmark-6

#### Standards

**International** EN 50288;  
 IEC 61156-5; ISO/IEC 11801  
**National** ANSI/TIA-568-C.2



Ambient installation T°C range  
 -10 .. 60 °C



Operating temp. range  
 -20 .. 60 °C



Fire retardant  
 No



Flame retardant  
 IEC 60332-1

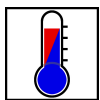
**Contact**

Noble Inc.  
Phone: +9821 - 88 82 86 03  
Noble@Noble-Network.com

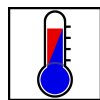
**LANmark-6 Cable**  
**LANmark-6 U/UTP PVC 305m Box**

installed cable.

Installations with LANmark-6 cable and connectivity are qualified for a 25 year full system warranty, which includes Parts, Channel Performance, Application Support and Labour, as described in the Nexans Certified System Warranty.



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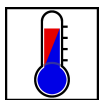
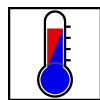
Flame retardant  
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### Characteristics

| Construction characteristics                              |              |
|---|--------------|
| Type of cable   | U/UTP        |
| Outer sheath  | PVC          |
| Colour  | Grey         |
| Screen  | Unshielded   |
| Dimensional characteristics                               |              |
| Diameter over insulation                                  | 1.02 mm      |
| Conductor cross-section (AWG)                             | 23           |
| Nominal outer diameter                                    | 6.3 mm       |
| Approximate weight  | 43 kg/km     |
| Electrical characteristics                                |              |
| Mutual capacitance  | 56 nF/km     |
| Max. DC resistance of the conductor at 20°C               | 70 Ohm/km    |
| Characteristic impedance                                  | 100 Ohm      |
| Transmission characteristics                              |              |
| Attenuation Crosstalk Ratio, 250MHz                       | 5.5 dB/100m  |
| Skew  | 30 ns/100m   |
| Nominal Velocity of Propagation (NVP)                     | 69 %         |
| Propagation delay, max. 100 MHz                           | 536 ns/100m  |
| Coupling attenuation at 30 MHz                            | 45 dB        |
| Mechanical characteristics                                |              |
| Maximum operating pulling force                           | 100 N        |
| Usage characteristics                                     |              |
| Category  | Cat. 6       |
| Range   | LANmark-6    |
| Minimum Bend Radius - During Installation (under Tension) | 50.0 mm      |
| Minimum Bend Radius - Installed                           | 25.0 mm      |
| Ambient installation temperature, range                   | -10 .. 60 °C |
| Operating temperature, range                              | -20 .. 60 °C |
| Fire retardant  | No           |
| Flame retardant   | IEC 60332-1  |
| Length  | 305 m        |
| Packaging   | Box          |
| Field of application                                      | Indoor       |


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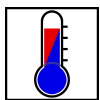
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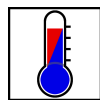
### Electrical Performance LANmark-6 cables

All values are specified at 20°C

| Freq.<br>in MHz | IL         |      | NEXT  |      | PSNEXT |      | ACR-F |      | PS ACR-F |      | RL    |      |
|-----------------|------------|------|-------|------|--------|------|-------|------|----------|------|-------|------|
|                 | in Db/100m |      | in dB |      | in dB  |      | in dB |      | in dB    |      | in dB |      |
|                 | Max.       | Typ. | Min.  | Typ. | Min.   | Typ. | Min.  | Typ. | Min.     | Typ. | Min.  | Typ. |
| <b>1</b>        | 2.0        | 2.0  | 74.3  | 80.3 | 72.3   | 78.3 | 67.8  | 72.8 | 64.8     | 69.8 | 20.0  | 22.0 |
| <b>4</b>        | 3.8        | 3.8  | 65.3  | 71.3 | 63.3   | 69.3 | 55.8  | 60.8 | 52.8     | 57.8 | 23.0  | 25.0 |
| <b>10</b>       | 6.0        | 6.0  | 59.3  | 65.3 | 57.3   | 63.3 | 47.8  | 52.8 | 44.8     | 49.8 | 25.0  | 27.0 |
| <b>16</b>       | 7.6        | 7.6  | 56.2  | 62.2 | 54.2   | 60.2 | 43.7  | 48.7 | 40.7     | 45.7 | 25.0  | 27.0 |
| <b>20</b>       | 8.5        | 8.5  | 54.8  | 60.8 | 52.8   | 58.8 | 41.8  | 46.8 | 38.8     | 43.8 | 25.0  | 27.0 |
| <b>31.25</b>    | 10.7       | 10.7 | 51.9  | 57.9 | 49.9   | 55.9 | 37.9  | 42.9 | 34.9     | 39.9 | 23.6  | 25.6 |
| <b>62.5</b>     | 15.4       | 15.4 | 47.4  | 53.4 | 45.4   | 51.4 | 31.9  | 36.9 | 28.9     | 33.9 | 21.5  | 23.5 |
| <b>100</b>      | 19.8       | 19.8 | 44.3  | 50.3 | 42.3   | 48.3 | 27.8  | 32.8 | 24.8     | 29.8 | 20.1  | 22.1 |
| <b>155</b>      | 25.2       | 25.2 | 41.4  | 47.4 | 39.4   | 45.4 | 24.0  | 29.0 | 21.0     | 26.0 | 18.8  | 20.8 |
| <b>200</b>      | 29.0       | 29.0 | 39.8  | 45.8 | 37.8   | 43.8 | 21.8  | 26.8 | 18.8     | 23.8 | 18.0  | 20.0 |
| <b>250</b>      | 32.8       | 32.8 | 38.3  | 44.3 | 36.3   | 42.3 | 19.8  | 24.8 | 16.8     | 21.8 | 17.3  | 19.3 |
| <b>300</b>      | -          | 36.4 | -     | 43.1 | -      | 41.1 | -     | 23.3 | -        | 20.3 | -     | 18.8 |
| <b>350</b>      | -          | 39.8 | -     | 42.1 | -      | 40.1 | -     | 21.9 | -        | 18.9 | -     | 18.3 |



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