# EN 50288-7 Hypron® XLPE Insulation OS Unarmoured Fire Retardant

- Instrumentation cables 170/300 V
- Overall Screen (OS)
- Lead free
- **Aliphatic and aromatic hydrocarbons resistant**

## STANDARDS

**Test** IEC 60332-3-22 Cat.A

## APPLICATIONS

These instrumentation and communication cable are used to **transmit analogue or digital signals in measurement and process control in moist areas and where aliphatic and aromatic hydrocarbons may be present. Hypron® offers an alternative to conventional lead covered cable and is an environmental friendly solution**.

## Design

Conductor:

Stranded bare copper class 2

Insulation:

Cross-linked polyethylene (XLPE)

Binder tape

Bedding

Inner sheath:

Polyvinyl chloride (PVC).

Colour: black.

Overall screen/sealing barrier:

Tinned copper drain wire,

Aluminium backed polyethylene tape

Bedding:

High density polyethylene (PE)

Colour: black

Special sheath (intermediate sheath):

Polyamide

Outer sheath:

Polyvinyl chloride (PVC).

Colour: black.

Other colour on request.

Lead free
**Yes**

Rated Voltage Uo/U (Um)
**170/300V**

Fire retardant
**EN IEC 60332-3-22 (cat A)**

Chemical resistance
**Aliphatic and aromatic hydrocarbons resistant**

Electro magnetic interference resistance
**Yes**

Operating temp.
**-20 ... 60 °C**

Max.conductor temp.in service
**90 °C**

## Core identification

Pair: white - black
Quad: white - black - red - blue (2 pair cables assembled as a quad)
White core printed with pair number

## Marking

NEXANS 279 XLPE/PVC/AL/HDPE/NC/PVC 170/300V Nber of pairs & cross-section

## CONTACT

Market information
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# EN 50288-7 Hypron® XLPE Insulation OS Unarmoured Fire Retardant

## CHARACTERISTICS

| | |
|---|---|
| **Construction characteristics** | |
| Conductor material | Bare copper |
| Type of conductor | Stranded, class 2 |
| Insulation | XLPE (Cross-linked Polyethylene) |
| Inner sheath | PVC |
| Overall screen | Tinned copper drain wire + aluminium/polyethylene tape |
| Material of bedding | High-density polyethylene (PE) |
| Intermediate sheath | Polyamide |
| Outer sheath | PVC |
| Lead free | Yes |
| Protection | no |
| **Electrical characteristics** | |
| Rated Voltage Uo/U (Um) | 170/300V |
| **Usage characteristics** | |
| Fire retardant | EN IEC 60332-3-22 (cat A) |
| Chemical resistance | Aliphatic and aromatic hydrocarbons resistant |
| Electro magnetic interference resistance | Yes |
| Operating temperature, range | -20 ... 60 °C |
| Max. conductor temperature in service | 90 °C |
| Standard | EN |

## SECTION 0.5MM²

| nb pairs | Conductor diam. [mm] | Diam. over insulation [mm] | Diam. over inner sheath [mm] | Diam. intermediate sheath [mm] | Min. outer diam. [mm] | Max. outer diam. [mm] | Approx. weight [kg/km] |
|---|---|---|---|---|---|---|---|
| 1 | 0.9 | 1.38 | 6 | 9.2 | 14.8 | 16.3 | 277 |
| 2 | 0.9 | 1.38 | 6 | 9.2 | 14.8 | 16.3 | 282 |
| 5 | 0.9 | 1.38 | 9.5 | 12.8 | 18.2 | 20.1 | 361 |
| 10 | 0.9 | 1.38 | 12.2 | 15.7 | 21.0 | 23.2 | 481 |
| 20 | 0.9 | 1.38 | 15.6 | 19.3 | 24.5 | 27.1 | 666 |
| 30 | 0.9 | 1.38 | 18.6 | 22.3 | 27.5 | 30.3 | 846 |

Lead free
**Yes**


Rated Voltage Uo/U (Um)
**170/300V**


Fire retardant
**EN IEC 60332-3-22 (cat A)**


Chemical resistance
**Aliphatic and aromatic hydrocarbons resistant**


Electro magnetic interference resistance
**Yes**


Operating temp.
**-20 ... 60 °C**


Max.conductor temp.in service
**90 °C**

# EN 50288-7 Hypron® XLPE Insulation OS Unarmoured Fire Retardant

## SECTION 0.75MM²

| nb pairs | Conductor diam. [mm] | Diam. over insulation [mm] | Diam. over inner sheath [mm] | Diam. intermediate sheath [mm] | Min. outer diam. [mm] | Max. outer diam. [mm] | Approx. weight [kg/km] |
|---|---|---|---|---|---|---|---|
| 1 | 1.1 | 1.58 | 6 | 9.2 | 14.8 | 16.3 | 282 |
| 2 | 1.1 | 1.58 | 6.3 | 9.5 | 15.1 | 16.6 | 302 |
| 5 | 1.1 | 1.58 | 10.5 | 13.8 | 19.2 | 21.2 | 417 |
| 10 | 1.1 | 1.58 | 13.5 | 17 | 22.3 | 24.6 | 574 |
| 20 | 1.1 | 1.58 | 17.5 | 21.2 | 26.4 | 29.1 | 831 |
| 30 | 1.1 | 1.58 | 20.9 | 24.6 | 29.7 | 32.7 | 1085 |

## SECTION 1.0MM²

| nb pairs | Conductor diam. [mm] | Diam. over insulation [mm] | Diam. over inner sheath [mm] | Diam. intermediate sheath [mm] | Min. outer diam. [mm] | Max. outer diam. [mm] | Approx. weight [kg/km] |
|---|---|---|---|---|---|---|---|
| 1 | 1.28 | 1.76 | 6 | 9.2 | 14.8 | 16.3 | 284 |
| 2 | 1.28 | 1.76 | 6.8 | 10 | 15.5 | 17.1 | 324 |
| 5 | 1.28 | 1.76 | 11.4 | 14.7 | 20.1 | 22.1 | 459 |
| 10 | 1.28 | 1.76 | 14.9 | 18.4 | 23.7 | 26.1 | 650 |
| 20 | 1.28 | 1.76 | 19.3 | 23 | 28.1 | 31.0 | 958 |
| 30 | 1.28 | 1.76 | 23 | 26.7 | 31.7 | 35.0 | 1263 |

## SECTION 1.5MM²

| nb pairs | Conductor diam. [mm] | Diam. over insulation [mm] | Diam. over inner sheath [mm] | Diam. intermediate sheath [mm] | Min. outer diam. [mm] | Max. outer diam. [mm] | Approx. weight [kg/km] |
|---|---|---|---|---|---|---|---|
| 1 | 1.5 | 2.16 | 6.8 | 10 | 15.5 | 17.1 | 322 |
| 2 | 1.5 | 2.16 | 7.7 | 10.9 | 16.4 | 18.1 | 374 |
| 5 | 1.5 | 2.16 | 13.3 | 16.6 | 21.9 | 24.2 | 562 |
| 10 | 1.5 | 2.16 | 17.7 | 21.2 | 26.4 | 29.1 | 844 |
| 20 | 1.5 | 2.16 | 23 | 26.7 | 31.7 | 35.0 | 1294 |
| 30 | 1.5 | 2.16 | 27.6 | 31.3 | 36.2 | 39.9 | 1747 |


Lead free
**Yes**

Rated Voltage Uo/U (Um)
**170/300V**

Fire retardant
**EN IEC 60332-3-22 (cat A)**

Chemical resistance
**Aliphatic and aromatic hydrocarbons resistant**

Electro magnetic interference resistance
**Yes**

Operating temp.
**-20 ... 60 °C**

Max.conductor temp.in service
**90 °C**

# EN 50288-7 Hypron® XLPE Insulation OS Unarmoured Fire Retardant

## SECTION 2.5MM²

| nb pairs | Conductor diam. [mm] | Diam. over insulation [mm] | Diam. over inner sheath [mm] | Diam. intermediate sheath [mm] | Min. outer diam. [mm] | Max. outer diam. [mm] | Approx. weight [kg/km] |
|---|---|---|---|---|---|---|---|
| 1 | 1.91 | 2.57 | 7.6 | 10.8 | 16.3 | 18.0 | 362 |
| 2 | 1.91 | 2.57 | 8.7 | 15.1 | 17.3 | 19.1 | 437 |
| 5 | 1.91 | 2.57 | 15.4 | 18.7 | 24.0 | 26.4 | 698 |
| 10 | 1.91 | 2.57 | 20.4 | 23.9 | 29.0 | 32.0 | 1075 |
| 20 | 1.91 | 2.57 | 26.9 | 30.6 | 35.5 | 39.2 | 1716 |
| 30 | 1.91 | 2.57 | 32.4 | 36.1 | 40.8 | 45.0 | 2366 |

## SELLING AND DELIVERY INFORMATION

Other fire performances IEC 60332-1 or IEC 60332-3-24(C) on request.

Minimum bending radius:

15 x outer diameter
To be doubled during laying operations

Tinned copper conductors available on request

Lead free
**Yes**


Rated Voltage Uo/U (Um)
**170/300V**


Fire retardant
**EN IEC 60332-3-22 (cat A)**


Chemical resistance
**Aliphatic and aromatic hydrocarbons resistant**


Electro magnetic interference resistance
**Yes**


Operating temp.
**-20 ... 60 °C**


Max.conductor temp.in service
**90 °C**