

# Nexans H07RN-F TITANEX® PREMIUM

Nexans TITANEX® PREMIUM 5G10

## Contact

Building Products Information  
contact.fr@nexans.com

**Nexans Ref.:** 10211866  
**Country Ref.:** 01272343  
**EAN 13:** 3427680068644

TITANEX® PREMIUM is a new H07RN-F cable with a wide variety of properties. It is zero halogen and recommended for use in the case of fire risk. It also includes the properties of H07RN8-F cables for resistance to submersion (AD8), H07BN4-F cables for operating temperature (90°C), and H07BB-F cables for use in extreme cold conditions (down to -50°C)

## DESCRIPTION

### Use

Nexans TITANEX® PREMIUM is a new H07RN-F cable with a wide variety of properties. It is zero halogen and recommended for use in the case of fire risk. It also includes the properties of H07RN8-F cables for resistance to submersion (AD8), H07BN4-F cables for operating temperature (90°C), and H07BB-F cables for use in extreme cold conditions (down to -50°C).

### Classification for use

- Use up to 1000V for fixed installations or power supply of motors
- Resistance to submersion: AD8
- Presence of corrosive or polluting substances: AF3
- Resistance to impacts: AG2
- Zero halogen (LSOH)
- Flame retardant (NF C 32070 C2; IEC 60332-1)
- Frequent bending: good
- Oil resistance: good
- Low temperature use limit: -50°C (static), -40°C (dynamic)

### Recommendations for use

The insulation and sheathing combinations result in excellent flexibility and good robustness, therefore the product is recommended for use in power cables for port cranes, mobile machines on public building sites, professional portable tools, refrigerating installations, long-term heavy-duty applications in port areas, on ships, offshore platforms...

Further applications include all public-facing facilities as well as buildings containing electronic equipment, central control rooms, airports, railway stations, road tunnels, lighting equipment, etc.



## DECLARATION OF PERFORMANCE

E<sub>ca</sub>

## STANDARDS

**International** EN 50525-2-21;  
HD 22.4; IEC 60245-4 type 66;  
IEC 60332-1

**National** NF C 32-070;  
NF C 32-102-4



Conductor flexibility  
**Flexible class 5**



Halogen free  
**Yes**



Rated Voltage U<sub>o</sub>/U  
(Um)  
**450 / 750 V**



Mechanical  
resistance to  
impacts  
**Good**



Cable flexibility  
**Flexible**



Bending factor  
installed  
**4 (xD)**



Dynamic bending  
factor  
**8 (xD)**



Flame retardant  
**NFC 32070 C2, IEC  
60332-1-2**

All drawings, designs, specifications, plans and particulars of weights, size and dimensions contained in the technical or commercial documentation of Nexans is indicative only and shall not be binding on Nexans or be treated as constituting a representation on the part of Nexans.

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1. **Conductor** : Flexible bare copper, class 5.
2. **Insulation** : Special crosslinked elastomer (zero halogen LSOH)
3. **Outer sheath** : Crosslinked elastomer with high mechanical properties (zero halogen LSOH)

## Installation

This cable is designed for open air operation. In the event it should be buried, it should be mechanically protected in a duct or trough.

## Bending radius

- Dynamic use: 6-8 times the outer cable diameter.
- Static use: 3 times the outer cable diameter if less than or equal to 12mm, 4 times if the diameter is more than 12mm.

## Conductor marking/color code

- 1 conductor = black
- 2 conductors = brown + blue
- 3 conductors = green/yellow + blue + brown (G)
- 4 conductors = green/yellow + brown + black + grey
- 5 conductors = green/yellow + blue + brown + black + grey
- 5 conductors = 1 green/yellow + all others black (numbered)

## Marking

USE < 'HAR > H07RN-F nbr X (or G) S

X = without green/yellow

G = with green/yellow

S = cross-section in mm<sup>2</sup> metric numbered marking



Conductor flexibility  
**Flexible class 5**



Halogen free  
**Yes**



Rated Voltage Uo/U  
(Um)  
**450 / 750 V**



Mechanical  
resistance to  
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**Good**



Cable flexibility  
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## CHARACTERISTICS

### Construction characteristics

Conductor material	Copper class 5
Insulation	Cross-linked synthetic elastomer type EI 4 waterproof, EI 6, EI 7, EI 8
Outer sheath	Cross-linked synthetic elastomer type EM2 waterproof, EM6, EM7, EM8
Sheath colour	Black
Conductor flexibility	Flexible class 5
Conductor shape	Circular
Halogen free	Yes
With Green/Yellow core	Yes
With smaller neutral conductor	No

### Dimensional characteristics

Number of cores	5
Conductor cross-section	10 mm <sup>2</sup>
Approximate net weight	1001 kg/km
Maximum outer diameter	29.1 mm
Neutral conductor section (when smaller)	- mm <sup>2</sup>

### Electrical characteristics

Rated Voltage U <sub>o</sub> /U (U <sub>m</sub> )	450 / 750 V
Permissible current rating in open air	- A
Permissible mobile installation current	60 A
Protected and fixed installation current	75 A
Voltage drop, single phase	3.43 V/A.km

### Mechanical characteristics

Mechanical resistance to impacts	Good
Cable flexibility	Flexible

### Usage characteristics

Bending factor when installed	4 (xD)
Dynamic bending factor	8 (xD)
Flame retardant	NFC 32070 C2, IEC 60332-1-2
Max. conductor temperature in service	90 °C
Maximum operating temperature	85 °C
Minimum operating temperature	-50 °C
Oil resistance	Good
RoHS compliant	Yes
Short-circuit max. conductor temperature	250 °C
Water proof	AD8

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