# Nexans H07RN-F TITANEX®

**Nexans H07RN-F TITANEX 3G1**




**Nexans Ref.:** 10055624
**Country Ref.:** 01394731
**EAN 13:** 3427680014474

## FIRE PERFORMANCE CLASS

Eca

## CONTACT

Building Products Information
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The TITANEX® flexible rubber cable range offers exceptional performances and is designed to release you from all your constraints. Robust yet flexible, TITANEX® is easy to use and withstands the toughest of conditions, such as hard-wearing situations, extreme temperatures and most chemicals

## STANDARDS

**Product** 2014/68/EU; EN 50525-2-21; HD 516; IEC 60245-4 type 66; NF C32-102-4

**Test** IEC 60332-1; NF C32-070/C2

**International** EU Directive 2011/65/EU (RoHS)

## ADVANTAGES

- Flex resistance up to five times greater than the standard requirements
- Excellent flexibility
- Excellent crush resistance
- Good resistance to chemicals, oils and vibrations

TITANEX® H07RN-F cables with EPR rubber insulation and rubber sheathing offer outstanding mechanical properties to meet your most varied requirements. No matter what the installation conditions are, whether indoors or outdoors, in cramped and hazardous environments or in the presence of oils and chemicals, TITANEX combines strengh and flexibility to meet all your requirements.
For more than 50 years the TITANEX® cables have been recognized and are the guarantee of reliable installations in industrial environments (factories, contruction sites, ports, ...) whether they are fixed or mobile such as for cranes, machines tool connections, motor power supplies .... The mechanical qualities of TITANEX cables also make them suitable for use in event environments, such as festivals, concerts and sport events, where the cable is exposed without protection and can be used several times.

With a flexing endurance up to **five times greater than the standard requirements**, **TITANEX®** provides exceptional reliability and durability, even under intensive use. Its superior resistance to repeated handling, frequent coiling and uncoiling, and demanding mechanical conditions helps ensure safe installations while significantly reducing maintenance and cable replacement costs.

- Core temperature : 90°C
- Operating Voltage : 450/750V mobile, 0.6/1kV fixed. TITANEX H07RN-F cables have been designed tio limit the generation and spread of fire and smoke.
- Reaction to fire : Eca (according to EN 50575:2014+A1:2016)
- Flame retardant (IEC 60332-1, C2)

Conductor flexibility
**Flexible class 5**

Lead free
**Yes**

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

Mechanical resistance to impacts
**AG3**

Cable flexibility
**Flexible**

Chemical resistance
**Accidental**

Water proof
**Good**

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



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.

## INSTALLATION

TITANEX H07RN-F cables can be laid in cable trays, on shelves, inside ducts or fixed to walls, outside with or without protection. They can also be immersed with additionnal mechanical protection. Additionnaly, they can also be intalled outdoors without protection (UV resistance).

**Minimum bending radius**

- Dynamic : 6 to 8 x outer diameter of the cable.
- Static : 3 x outer diameter of the cable if OD< or = 12mm ; 4x if OD > 12mm.

**Laying cable conductors**

When pulling the cable, all conductors must be equally stressed. Th tensils force must never exceed 15N/mm2 of total cross-sections.
Th maximum tensile force should never exceed 1000N  in total, although the above rule may lead to higher values for large cross-sections.

## MARKING

TITANEX 90°C n (x or G) s NEXANS CE «har» USE H07RN-F - factory n° Made in France Y Eca n°DoP

**Metric marking**

Marking every metre, so that only the required length is unwound.



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## CHARACTERISTICS

| | |
|---|---|
| **Construction characteristics** | |
| Conductor material | Bare copper |
| Conductor flexibility | Flexible class 5 |
| Conductor shape | Circular |
| Insulation | Special cross-linked elastomer |
| Outer sheath | Special cross-linked elastomer |
| Sheath colour | Black |
| With smaller neutral conductor | No |
| With Green/Yellow core | Yes |
| Lead free | Yes |
| **Dimensional characteristics** | |
| Number of cores | 3 |
| Conductor cross-section | 1 mm² |
| Average insulation thickness | 0.8 mm |
| Average sheath thickness | - mm |
| Approximate weight | 117 kg/km |
| Maximum outer diameter | 10.7 mm |
| Minimum outer diameter | 8.3 mm |
| Neutral conductor section (when smaller) | - mm² |
| **Electrical characteristics** | |
| Rated Voltage Uo/U (Um) | 450/750 V |
| Permissible current rating in open air | 20 A |
| Voltage drop, single phase | 39.4 V/A.km |
| **Mechanical characteristics** | |
| Mechanical resistance to impacts | AG3 |
| Cable flexibility | Flexible |
| **Usage characteristics** | |
| Silicone free | Yes |
| Chemical resistance | Accidental |
| Water proof | Good |
| Packaging | Cut to length |
| Field of application | - |
| Length | - m |
| Max. conductor temperature in service | 90 °C |
| Minimum dynamic operating bending radius | 64.2 mm |
| Minimum static operating bending radius | 32.1 mm |
| Oil resistance | Yes |
| Operating temperature, range | -25 ... 55 °C |
| RoHS compliant | Yes |
| Short-circuit max. conductor temperature | 250 °C |
| **Fire safety characteristics** | |
| Flame retardant | C2, NF C 32-070 & IEC 60332-1 |



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## ENVIRONMENTAL DATA

This product is part of the **low carbon** range of Nexans : a selection of products ensuring the reduction of the carbon footprint and subject to rigourous ecodesign criteria.




Nexans Low Carbon Selection Criteria: minimum integration of 10% recycled copper or aluminum and/or 100% low-carbon aluminum sourcing.

| | |
|---|---|
| **Global Carbon Footprint** | |
| Amount of $CO_2$ emitted Cradle to Gate phase (raw material collection and manufacturing), for the production of 1 km of cable. | **262.4 kg eq. $CO_2$** |
| **Recycled copper ratio** | |
| Percentage of recycled metal in the cable conductor. | **12%** |
| **Manufacturing site** | |
| Manufactured in France | **Bohain** |

*Environmental information coming from Nexans' Product Environmental Profile (PEP Ecopassport®)*



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# ADDITIONAL INFORMATIONS NEXANS TITANEX

## Core identification

**(In accordance with european harmonization HD308 S2)**

1x: black
2x: brown - blue
3x: brown - black - grey (brown - black - blue if the conductor cross-section is 1.5 or 2.5mm²)
3G: brown - blue - green/yellow
4x: brown - black - grey - blue
4G: brown - black - grey - green/yellow
5x: black cores with printed numbers
5G: blue - brown - black - grey - green/yellow
7 cores and above : black cores with printed numbers

## Current rating capacities

The data are indicated for continuous duty operation and apply to:

- Maximum conductor temperature = 90 °C
- Nominal frequencies = 50 or 60 Hz
- One cable in free air (on perforated trays)
- Ambient temperature = 30 °C

Data recording from IEC 60364-5-52 or NF C 15-100

## Voltage drop

The data are based on Cos ø = 0.8

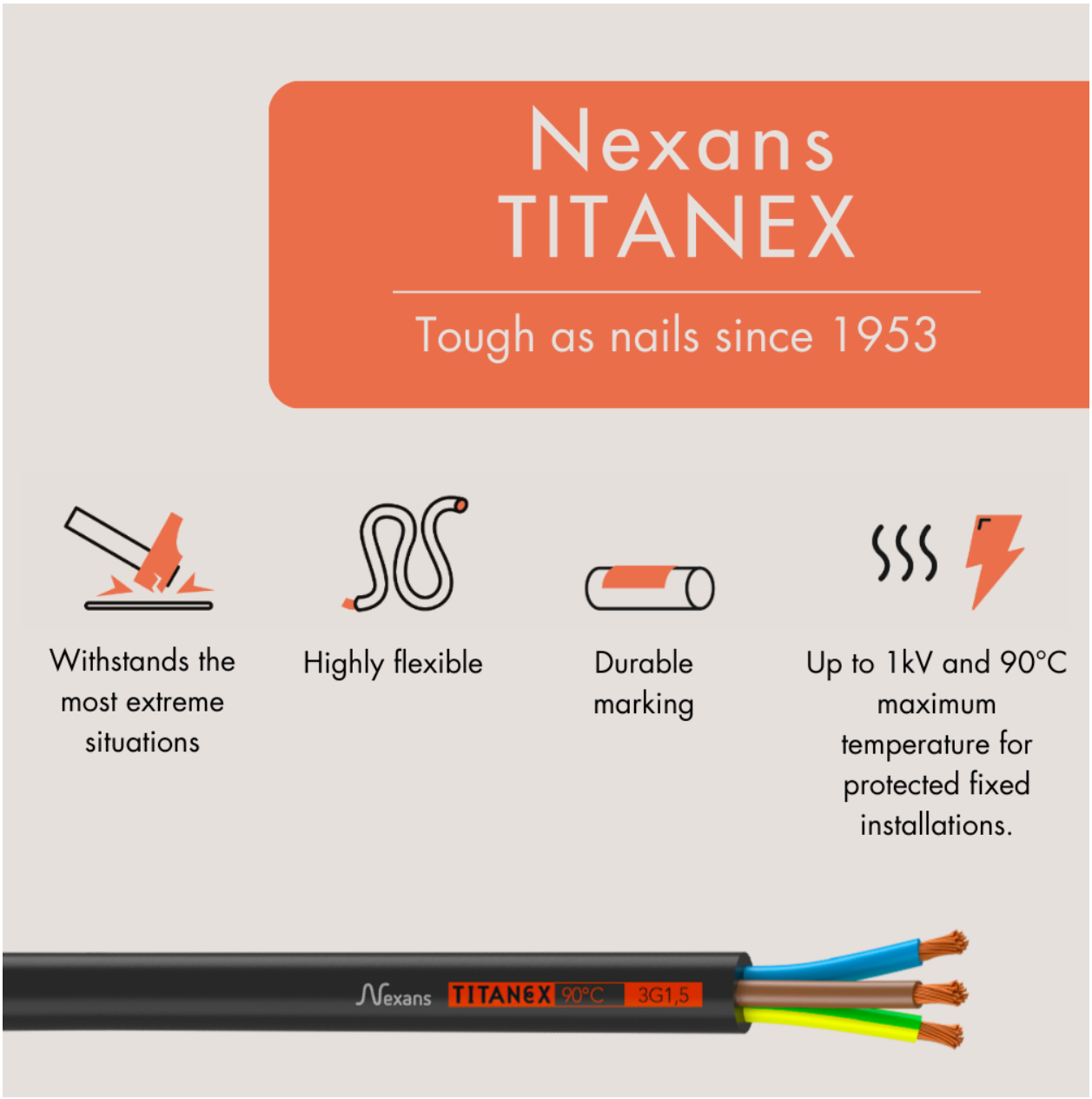
## Minimum bending radius

- Static use: 3 x cable outer diameter
- Dynamic use: 6 to 8 x outer cable diameter.



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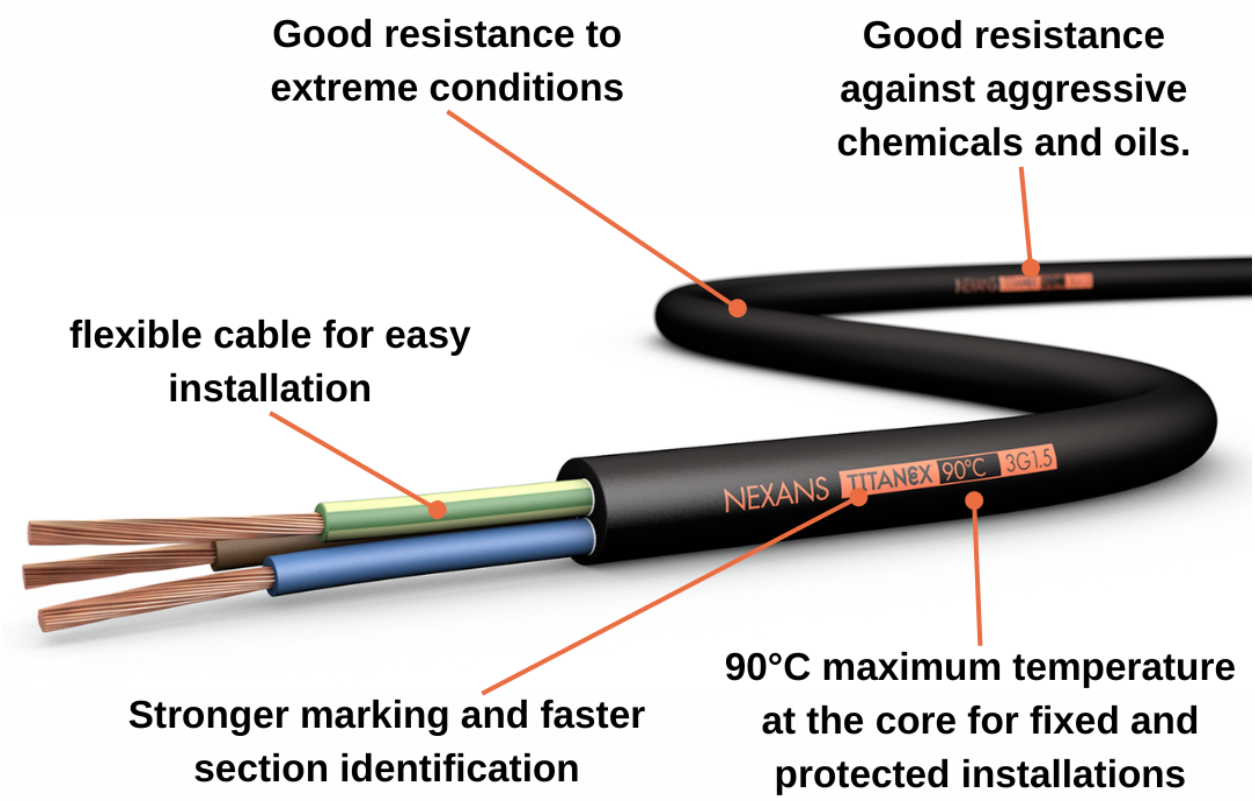
## NEXANS TITANEX, MADE TO SURVIVE






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## NEXANS TITANEX FEATURES




TITANEX



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