Nexans H07RN-F TITANEX®

Nexans H07RN-F TITANEX 4G50



Nexans Ref.: 10055560
Country Ref.: 01397705
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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	4
Conductor cross-section	50 mm²
Average insulation thickness	1.6 mm
Average sheath thickness	- mm
Approximate weight	3030 kg/km
Maximum outer diameter	47.5 mm
Minimum outer diameter	37.7 mm
Neutral conductor section (when smaller)	- mm²
Electrical characteristics	
Rated Voltage Uo/U (Um)	450/750 V
Permissible current rating in open air	192 A
Voltage drop, single phase	0.75 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	285.0 mm
Minimum static operating bending radius	142.5 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.	**9.14 t 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

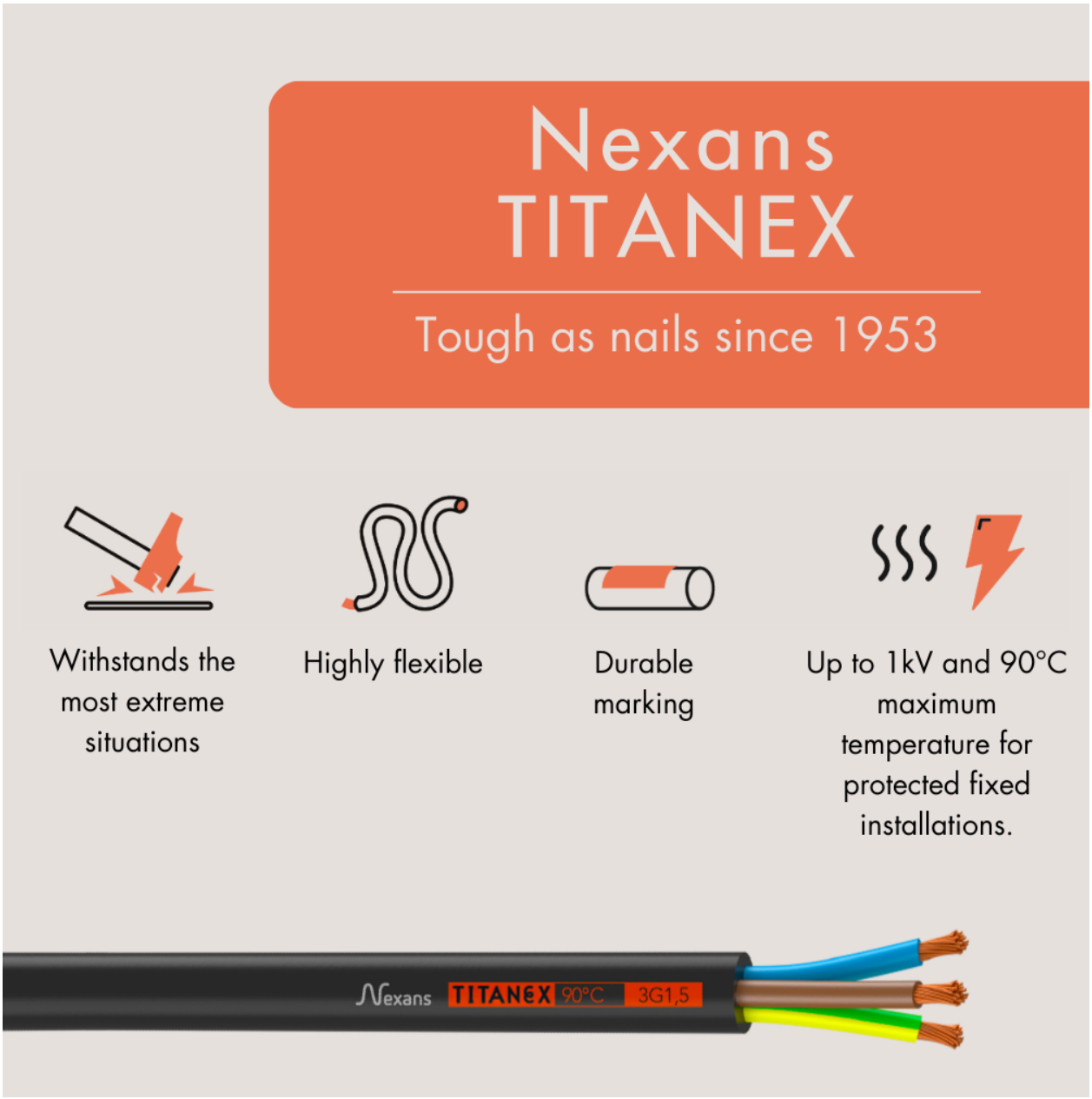
The data are based on Cos ø = 0.8

Minimum bending radius

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

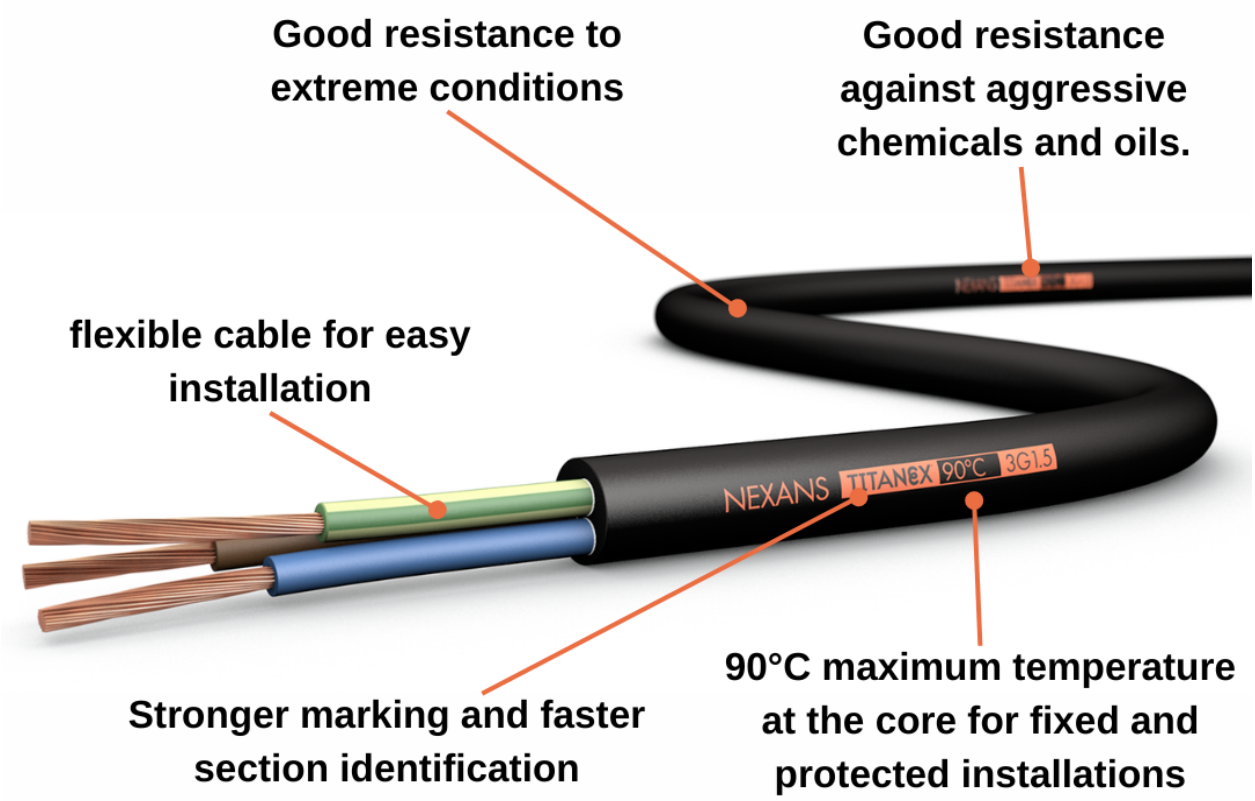
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NEXANS TITANEX, MADE TO SURVIVE



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NEXANS TITANEX FEATURES



TITANEX

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