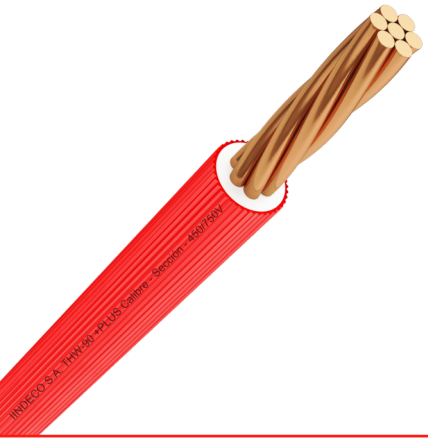
THW-90 +PLUS AWG 450/750 V

THW-90 +PLUS 450/750 V 10 AWG, R100



Nexans Ref.: P00040531-3
Country Ref.: 10055665

CONTACT

Local Sales
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DESCRIPTION

Copper cable with Low Smoke PVC insulation and **smooth surface**, whose operating temperature is 90°C. General application in fixed installations, resistant to humidity and heat. **The ribbed surface offers better cable sliding during installation.**

APPLICATION

Special application in those poorly ventilated residential environments in which a fire increases the possibility of survival of possible victims by having a good visibility for rescue and escape from the place due to: low emission of dense smoke, low emission of harmful gases and does not spread the fire. They are generally installed in pipes for fixed installations, in buildings, inside places with dry or humid environment and in general in all installations that require higher current capacity than the TW-80 +PLUS cable. Not recommended for outdoor installations.

STANDARDS

PRODUCT

NTP 370.250; NTP 370.252; UL 83

TEST

IEC 61034-2; UL 2556; IEC 60332-3-25

CONSTRUCTION

1. Conductor: Soft copper, class B.

2. Insulation: Compound polyvinyl chloride PVC Low Smoke.

From 14 AWG up to 10 AWG in double-layer insulation.

MAIN CHARACTERISTICS

Good dielectric strength, resistance to moisture, grease and heat up to serving temperature. The insulation has the following characteristics when the cable is exposed to fire:

Low dense emission smoke: Delayed dense smoke emission.

Fire retardant according IEC 60332-3-25 CAT. D.

GAUGE

From 14 AWG up to 10 AWG.

Conductor flexibility	Rated Voltage Uo/U (Um)	Maximum operating temperature	Smoke density	Flame retardant	Fire retardant
Class B	**450/750 V**	**90 °C**	**Low IEC 61034-2**	**UL 2556 VW1**	**EN IEC 60332-3-25 (cat D)**

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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MARKING

INDECO S.A. CB/THW-90 +PLUS - Gauge(AWG) - Section(mm2) - 450/750 V - LOW SMOKE - DOES NOT PROPAGATE THE FIRE CAT. D - MADE IN PERU

PACKING

Rolls of 100 meters or on non-returnable wooden reels.

COLOUR

See identification in product list.

PRODUCT STANDARDS

NTP 370.250: Conductors of insulated cables.

NTP 370.252: Thermoplastic and thermoset insulated cables of rated voltages up to and including 450/750 V.

UL 83: Thermoplastic-Insulated Wires and Cables.

TESTING STANDARDS

IEC 61034-2: Measurement of smoke density of cables burning under defined conditions.

UL 2556: Wire and Cable Test Methods. **Section 9.4:** VW1 (Vertical-Specimen) Flame Test.

IEC 60332-3-25: Test for vertical flame spread of vertically-mounted bunched wires or cables - Category D.

CHARACTERISTICS

Construction characteristics	
Conductor material	Soft copper
Insulating material	PVC Low Smoke
Colour	Red
Conductor flexibility	Class B
Insulation	PVC
With Green/Yellow core	No
Dimensional characteristics	
Conductor cross-section (AWG/KCMIL)	10 AWG
Total number of wires	7
Conductor diameter	2.8 mm
Minimum insulation thickness	0.76 mm
Nominal outer diameter	4.4 mm
Approximate weight	58 kg/km
Conductor cross-section	5.25 mm²
Number of cores	1
Electrical characteristics	
Rated Voltage Uo/U (Um)	450/750 V
Dielectric strength	2.0 kV
Time of application Dielectric strength core to screen AC	1 min.
Max. DC resistance of the conductor at 20°C	3.547 Ohm/km

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Electrical characteristics	
Nominal capacitance	983.0 pF/m
Perm current rating in air 30°C	56 A
Perm current rating in duct 30°C	40 A
Usage characteristics	
Maximum operating temperature	90 °C
Overload maximum core temperature	130 °C
Short-circuit max. conductor temperature	250 °C
Midspan	No
Reference	03
Fire safety characteristics	
Smoke density	Low IEC 61034-2
Flame retardant	UL 2556 VW1
Fire retardant	EN IEC 60332-3-25 (cat D)

CALCULATION OF CURRENT CONDITION L.V.; 90°C

CALCULATION OF CURRENT CONDITION

Maximum conductor temperature : 90°C.
Ambient air temperature : 30°C.

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