Copper Building Wire
XHHW-2 vs THHN/THWN-2

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Prysmian Copper Building Wire Offering

Our Copper Building Wire line consists of Types XHHW-2, THHN/THWN-2, and TFFN and come in a variety of colors and feature the Easy Gilder®, extra low-friction jacket designed to improve installation even under the most challenging conditions.

Our high-quality copper building wire is manufactured in the U.S. and delivers long-term, reliable performance in many Commercial & Industrial building applications.

THHN/THWN-2 Easy Gilder®

THHN/THWN-2 Easy Gilder® cable is a versatile solution for most general wiring applications, from service entrance and feeders to branch circuits. THHN/THW-2 Easy Gilder® features a specially designed insulation that reduces pull force up to 50% compared to traditional THHN/THWN-2 wires that rely on pulling lubricants. This high-performance copper cable allows for quick and easy installation and reduces labor, waste and material costs in conduit and wire installations.

Available in full color, cross-linked polyethylene insulation, our THHN/THWN-2 Easy Gilder® cable is RoHS* compliant and environmentally sustainable while providing excellent long-term performance. These cables meet the requirements of the NEC and UL listed standards.

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XHHW-2 Easy Gilder®

XHHW-2 Easy Gilder® cable is intended for general purpose wiring in residential, commercial and industrial construction and is ideally suited for building wire power distribution. Typically used in conventional conduit and wire installations, XHHW-2 Easy Gilder® cable is approved for use in raceways as service, feeder or branch circuits and direct buried per the recommendations of the NEC.

Available with a Low-Smoke, Zero Halogen insulation, GenFree® II XHHW-2 is designed for use in auditoriums, arenas and health facilities where more stringent specifications for smoke- and halogen-free materials are required, and maximum performance is critical

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Prysmian Group
4 Tesseneer Drive, Highland Heights, KY 41076
+1-859-572-8000 / na.prysmiangroup.com
ACS-DS-0011-0221

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XHHW-2 vs THHN/THWN-2

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Comparison of XHHW-2 vs THHN/THWN-2

Performance Characteristics	XHHW-2	THHN/THWN-2
Insulation Type	*Thermoset (XLPE)	**Thermoplastic-PVC & Nylon
Crush Test Min for 14 AWG	1200 Pounds	225 Pounds
Minimum Installation Temperature	- 40 °C	- 10 °C
Dielectric Strength (Voltage)	3.0 KV-6.0 KV	2.0 KV-3.5KV
Rated Operating Voltage	600V or 1000V***	600V
Continuous Operating Temperature	90 °C	90 °C
Emergency Overload Temperature	130 °C	105 °C
Short Circuit Temperature	250 °C	150 °C
Moisture Resistant	Excellent	Good
Insulation Resistance (IR)	High	Low

*Thermoset: A classification for an insulation or jacket that undergoes a chemical change known as vulcanization,
** Thermoplastic: A classification for an insulation or jacketing material that can be softened and made to flow by heating
*** 1000V rating is an optional in UL 44, verify with print legend; THHN/THWN-2 is limited to 600V by UL 83.

1) Crush Test: A UL test that measures the physical toughness of an insulation or jacket normally measured in pounds required to fracture or shatter a cable sample.

2) Minimum Cold Installation Temperature Rating: The coldest temperature a cable can be installed without risk of cable damage occurring due to cold temperature

3) Dielectric Strength: The voltage an insulation can withstand before breakdown of the insulation occurs (cable failure)

4) Emergency Overload Temperature: The maximum operating temperature a cable can withstand when in an overload condition caused by a spike in demand or other unplanned overload condition

5) Short Circuit Temperature: The higher the temperature a cable can handle the more fault current the cable can handle prior to the cable failing.

6) Moisture resistant: The cable's ability to perform overtime in a moist operating environment without incurring premature cable failure.

7) Insulation Resistance: A measurement used to evaluate the integrity/quality of an insulation material.

8) IR Temperature Derating: Insulation resistance of PVC drops with temperature rise at a much greater rate than with thermoset insulations.

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