

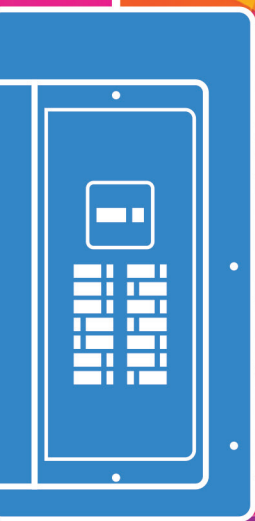
REMEE WIRE & CABLE

**Building Wire Solutions for
The Electrical Construction Industry**

VOLTGUARD600™

BY REMEE

POWER CABLES



Reliable Building Wire for the Electrical Construction Industry

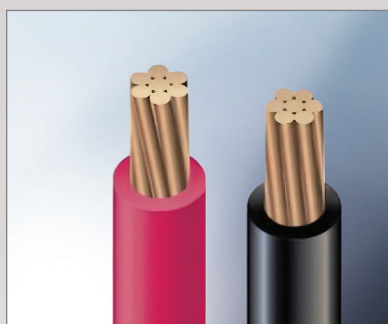
Remee Wire & Cable offers the electrical construction industry a complete selection of power cables needed today for building wire applications. Remee knows that safety in power transmission is of utmost importance, so we manufacture our building wire for consistency and reliability under our trade name VoltGuard600.™

VoltGuard600™ by Remee offers a popular selection of building wire used for residential, commercial, and industrial buildings. They have been designed to carry electricity safely through branch circuits, feeders, and service entrances, among other applications.

Remee's products cover all UL listings for all voltages and installation environments. Volt Guard600™ cables feature copper conductors, insulated or jacketed with

materials like PVC, XLPE, and nylon. They are rated for 600 volts (some up to 1kV) with specific temperature ratings (from -40°C to +90°C, dry or wet). They meet standards such as NEC (National Electrical Code), UL (Underwriters Laboratories), C(UL), or CSA.

VoltGuard600™ cables are usually installed in conduit, raceways, or cable trays, however some can be direct buried, or aerially supported by a messenger.



XHHW-2 Wire

Features:

- Insulation: Cross-linked polyethylene (XLPE)
- Rated: 600V/1kV, -40°C to +90°C wet or dry
- Flame-resistant, chemical, moisture, abrasion and sunlight resistant
- Thinner insulation wall and more flexible compared to RHH/RHW-2
- Excellent dielectric strength and chemical resistance

Uses and Applications of XHHW-2 Wire

1. Commercial and Industrial Wiring

- Used in power distribution systems, particularly in conduit, raceways, or tray cable systems (1/0 and larger)
- Suitable for both wet and dry locations, making it highly versatile

2. Underground Installations

- XHHW-2 is rated for direct burial

3. Service Entrance

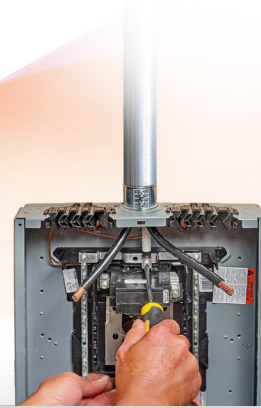
- Commonly used for service entrance conductors, where cables run from utility service point to a building's main panel

4. Industrial Control Panels and Machinery

- Its thermal and moisture resistance makes it a good choice for industrial control wiring and machinery in harsh environments

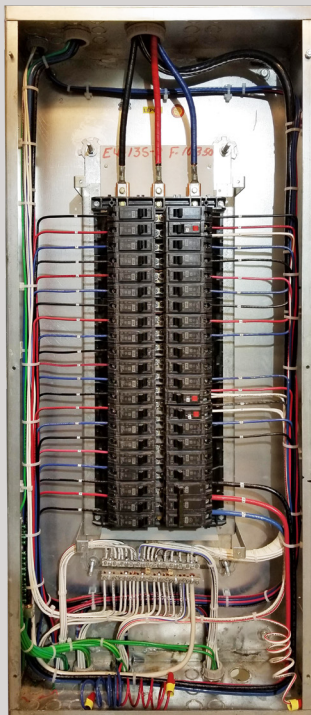
Part Numbers: XHHW Series





Features:

- Insulation: XLPE
- Rated: 600V/1kV, -40°C to +90°C for wet or dry applications
- Thicker insulation compared to XHHW-2, providing extra mechanical and thermal protection
- Flame, abrasion, sunlight, and moisture resistant
- USE-2 is Direct Burial rated, can be installed underground without conduit, saving time and cost



RHH/RHW-2/USE-2 Wire

RHH/RHW-2/USE-2 cable is a type of electrical wire with specific insulation and performance characteristics defined by the National Electrical Code (NEC).

RHH = Rubber insulation, high heat resistance (up to 90°C in dry locations).

RHW-2 = Rubber insulation, heat resistant, water resistant (suitable for wet locations), rated for 90°C in both wet and dry locations.

USE-2 = Underground Service Entrance, Type 2 wire is designed specifically for underground and outdoor electrical distribution, with a focus on durability in harsh conditions.

Uses and Applications of RHH/RHW-2/USE-2 Wire

1. Power Distribution

- Primary use: Transmitting electrical power from transformers to service panels or between panelboards
- Found in commercial, industrial, and residential installations

2. Conduit and Raceway Systems

- Installed in conduits, trays, or raceways where physical protection is needed
- NEC requires these cables to be protected unless otherwise rated

3. Underground Installations

- RHW-2 is rated for wet locations, making it suitable for direct burial or installation in underground conduit

4. Industrial Facilities

- Ideal in chemical plants, oil refineries, and manufacturing environments due to its chemical-resistant insulation

5. Utility and Substation Work

- Used for feeder circuits between transformers and switchgear or distribution panels

6. Switchgear and Panelboard Wiring

- Inside buildings for internal connections in switchgear, control panels, and motor control centers

7. Outdoor Applications

- Suitable for outdoor feeders to sheds, garages, barns, or detached buildings
- Often used in agricultural settings for long underground runs

8. Industrial Power Distribution

- Can be used in large-scale industrial settings where buried cable runs are required for powering buildings or equipment

9. Subpanel or Detached Structure Feed

- Used to feed subpanels in outbuildings or other detached structures when run underground

Uses and Applications of USE-2 Wire

1. Underground Service Entrance

- Most commonly used to connect electrical service from a utility transformer to a residential or commercial building's main panel
- Ideal for direct burial without requiring conduit

2. Outdoor Applications

- Suitable for outdoor feeders to sheds, garages, barns, or detached buildings
- Often used in agricultural settings for long underground runs

3. Industrial Power Distribution

- Can be used in large-scale industrial settings where buried cable runs are required for powering buildings or equipment

4. Subpanel or Detached Structure Feed

- Used to feed subpanels in outbuildings or other detached structures when run underground

Part Numbers: RHH series

THWN-2/THHN Wire

THWN-2 = (Thermoplastic Heat and Water resistant Nylon-coated) wire is one of the most common and versatile electrical wires used in residential, commercial, and industrial applications.

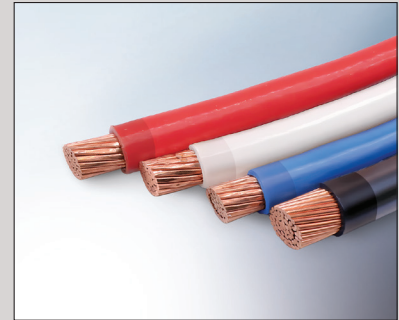
Features:

- Insulation: PVC with nylon jacket
- Rated: 600V, -40°C to +90°C dry
- Nylon over PVC insulation
- Very thin insulation compared to XLPE-based wires
- Good abrasion and chemical resistance from nylon jacket
- More versatile since it can handle both wet (if in conduit) and dry installations
- Sunlight resistant
- Thin, Lightweight Insulation – Easier to pull through conduit and requires less space
- Cost-Effective – Generally cheaper than XHHW-2 or USE-2 for indoor applications
- Versatile for Indoor Use – Commonly used for conduit, panel, and control wiring in buildings
- Oil, Gas & Chemical Resistant – Nylon jacket adds extra protection against corrosion and abrasion

THHN = (Thermoplastic Heat and Water resistant Nylon-coated) wire is one of the most common and versatile electrical wires used in residential, commercial, and industrial applications.

Features:

- Insulation: PVC with nylon jacket
- Rated: 600V, -40°C to +90°C dry
- Nylon over PVC insulation
- Very thin insulation compared to XLPE-based wires
- Good abrasion and chemical resistance from nylon jacket
- More versatile since it can handle both wet (if in conduit) and dry installations
- Sunlight resistant
- Thin, Lightweight Insulation – Easier to pull through conduit and requires less space
- Cost-Effective – Generally cheaper than XHHW-2 or USE-2 for indoor applications
- Versatile for Indoor Use – Commonly used for conduit, panel, and control wiring in buildings
- Oil, Gas & Chemical Resistant – Nylon jacket adds extra protection against corrosion and abrasion



Uses & Applications of THWN-2 Wire

1. Building Wiring

- Used for branch circuits and feeders inside buildings
- Common in conduit or raceways in homes, offices, and commercial structures

2. Control Wiring

- Used inside control panels, machines, and equipment wiring, especially in dry environments.

3. Conduit Installations

- Must be installed in conduit, such as EMT, PVC, or flexible metal conduit (FMC)
- THHN is not rated for direct burial or open-air use without conduit

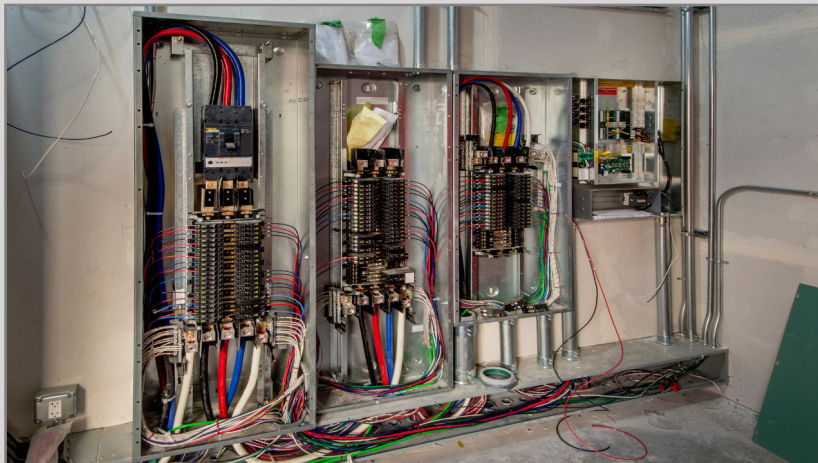
4. Lighting and Outlet Circuits

- Frequently used for general-purpose lighting, receptacles, and HVAC systems

4. Industrial Power Distribution

- Suitable for industrial facilities when wiring is routed through conduit

Part Numbers: THHN Series



Copper Ground Wire

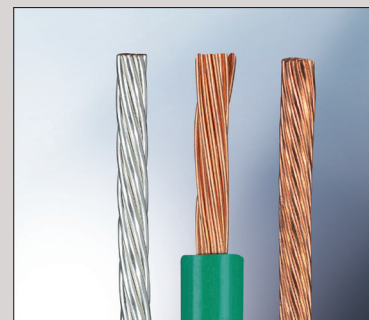
VoltGuard600™ ground wire features copper and tinned copper solid and stranded conductors with insulation options.

Part Numbers: RM Series

Building Wire Comparison Chart II

Remee's VoltGuard600™ cables provide maximum flexibility and versatility by having both wet and dry ratings.

Use the chart below to select the right building wire product for your application.



WIRE TYPE	UL TYPE	INSULATION MATERIAL	VOLTAGE RATING	HIGH TEMP. RATING	LOW TEMP. RATING	WET LOCATION USE	NOM. INSULATION THICKNESS	MIN. JACKET THICKNESS	KEY FEATURES	TYPICAL APPLICATIONS
THHN See THWN-2	UL 83	PVC insulation with nylon jacket	600V	90°C dry, (& 90°C wet dual-listed)	-40°C wet/dry	Yes, because dual-listed	15 - 70 mils (varies by AWG)	4 - 9 mils (varies by AWG)	Thin insulation, high flexibility, sunlight resistant, cost-effective	Conduit and raceways in dry locations, plus same as THWN-2
THWN-2 Multi-listed including THHN	UL 83	PVC insulation with nylon jacket	600V	90°C wet/dry	-40°C wet/dry	Yes	15 - 70 mils (varies by AWG)	4 - 9 mils (varies by AWG)	Dual-rated (THHN/THWN-2), versatile, sunlight resistant	Conduit and raceways, feeders, branch circuits in wet/dry locations
XHHW-2	UL 44	Cross-linked polyethylene (XLPE)	600V/1kV	90°C wet/dry	-40°C wet/dry	Yes	30 to 80 mils (varies by AWG)	N/A	High dielectric strength, sunlight resistant, flexible	Feeders and branch circuits in conduit, industrial/commercial/residential
USE-2 See RHW-2	UL 854	Cross-linked polyethylene (XLPE)	600V	90°C wet/dry	-40°C wet/dry	Yes	45 - 110 mils (varies by AWG)	N/A	Direct burial rated, sunlight resistant, OK for interior use above ground since multi-rated	Underground service entrance, direct burial, outdoor feeders, plus same as RHW-2
RHH See RHW-2	UL 44	Cross-linked polyethylene (XLPE)	1000V	90°C dry, (& 90°C wet dual-listed)	-40°C wet/dry	Yes, because dual-listed	45 - 110 mils (varies by AWG)	N/A	Flame-resistant, thick insulation, sunlight resistant	Dry locations in conduit and raceways, plus same as RHW-2
RHW-2 Multi-listed including RHH and USE-2	UL 44	Cross-linked polyethylene (XLPE)	1000V	90°C wet/dry	-40°C wet/dry	Yes	45 - 110 mils (varies by AWG)	N/A	Heat- and moisture-resistant, sunlight resistant, direct burial rated	Underground service entrance, feeders, conduit, raceways, duct, wet/dry applications

Summary

XHHW-2 =

Balanced performance, moisture, sunlight & chemical resistance. Best for long runs, harsh environments, wet/dry versatility."

RHH =

Heavy insulation for heavy-duty protection, for indoor dry use only.

RHW-2 =

Same as RHH but wet-rated, very durable (including burial).

USE-2 =

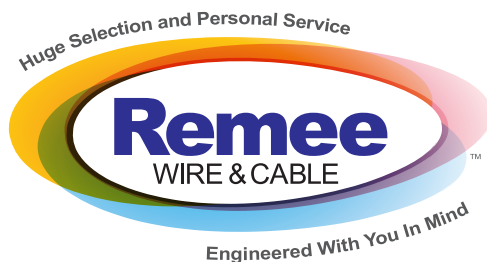
For underground use only, such as underground service entrances

THWN =

Thin, cost-effective, easy to install; for indoor dry use only.

THWN-2 =

Most versatile for general purpose use; handles both wet and dry applications.



www.remee.com

Standards & Certifications

Remee's products cover all UL listings for all voltages and installation environments, including:

UL 83 | UL 1581 | UL 44 | UL 854
RW90 | CSA C22.2 No. 38
C(UL) | NEC NFPA 70

All Remee wire and cable products are manufactured under ISO 9001 certification.

Additional Features Available

Here are some of the features you can select for a custom designed cable:

- Insulation options
- Various conductor sizes
- Oxygen-free copper
- Non-standard colored jackets
- Other requirements available on request

VOLTGUARD600™

BY REMEE



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