

Triple insulated wire is a specialized type of winding wire made with a single copper conductor and three layers of insulation. The insulation is made from modified ETFE and protects the coiled wire from short-circuiting, interwinding breakdown, and mechanical damage. The reinforced insulation provides superior voltage ratings, dielectric strength, and creepage/clearance spacing requirements met which are not possible with standard magnet wire alone. As such, the wire can be used for making more compact coils without the additional insulation that would otherwise be required. The wire is rated for Class F service (155°C/311°F) and carries several UL/IEC/VDE compliances and insulation system approvals, making it ideal for switching transformers, medical applications, and other electrical components that require stringent performance and regulatory compliance.

Remington Industries offers this triple insulated wire in 9 wire gauges (from 16 to 32 AWG) and several spool sizes (see below) to fit the needs of your application.

- Type: Triple Insulated Winding Wire
- Conductor: Solid Tin-Plated Copper per ASTM B33
- Insulation Material: Modified ETFE
- Insulation Color: Gray
- Insulation Layers: 3 (Reinforced)
- Insulation Thickness per Layer:
 - 16 AWG: 0.0017"
 - 18 to 32 AWG: 0.0015"
- Temperature Rating: 155°C (311°F)
- Voltage Ratings:
 - 1,500 V_{pk} per UL 60950
 - 1,414 V_{pk} per DIN EN IEC 62368-1, IEC 62368-1
 - 495 V_{rms} per DIN EN 60601-1, IEC 60601-1
 - 1,000 V_{rms} per DIN EN IEC 61558-1, IEC 61558-1
 - 18 to 32 AWG Only: 707 V_{rms} per UL 60601
- Breakdown Voltage: Approx. 7,000 V_{AC} (single wire) when tested per IEC 60851-5 Clause 4.4.1
- UL Recognized Component (OBJT2 File E206198, OBJS2 File E188330)
- VDE Certificate Number 40000223
- Electrical Insulation System Compatibility: RXT-2, TCA
- REACH & RoHS Compliant
- Spool Sizes Available: 25 ft, 100 ft, 250 ft, 500 ft, 1000 ft

PART NUMBER	WIRE GAUGE	CONDUCTOR DIAMETER	OVERALL DIAMETER	NOMINAL WEIGHT	MAXIMUM DCR AT 20°C (68°F)
16TIWE	16 AWG	0.0508" +0.0016"/-0.0006"	0.061" ±0.0015"	8.47 lb/1000 ft	0.00426 Ω/ft
18TIWE	18 AWG	0.0403" +0.0012"/-0.0004"	0.0493" +0.0015"/-0.001"	5.38 lb/1000 ft	0.00677 Ω/ft
20TIWE	20 AWG	0.0320" +0.0010"/-0.0003"	0.0410" +0.0015"/-0.001"	3.48 lb/1000 ft	0.0107 Ω/ft
22TIWE	22 AWG	0.0253" +0.0008"/-0.0003"	0.0343" +0.0015"/-0.001"	2.25 lb/1000 ft	0.0172 Ω/ft
24TIWE	24 AWG	0.0201" +0.0006"/-0.0002"	0.0291" +0.0015"/-0.001"	1.48 lb/1000 ft	0.0273 Ω/ft
26TIWE	26 AWG	0.0159" +0.0005"/-0.0002"	0.0249" ±0.001"	0.978 lb/1000 ft	0.0435 Ω/ft
28TIWE	28 AWG	0.0126" +0.0004"/-0.0001"	0.0216" ±0.001"	0.659 lb/1000 ft	0.0693 Ω/ft
30TIWE	30 AWG	0.0100" +0.0003"/-0.0001"	0.0190" ±0.001"	0.454 lb/1000 ft	0.110 Ω/ft
32TIWE	32 AWG	0.0080" +0.0003"/-0.0001"	0.0170" ±0.001"	0.324 lb/1000 ft	0.17838 Ω/ft

Triple Insulated Wire

ETFE, Reinforced

Data Sheet

Remington Industries

is proud to offer our

Custom Wire Services

Our exclusive inventory of in-stock wire and ability to procure wire of all kinds makes us the perfect partner for wire purchasing and custom wire services. We are proud to provide essential, high quality wire for engineering projects, educational science projects, coil winding, and electronics applications.

Some of our many wire services include the following:

- Wire Re-Packaging
- Bifilar & Trifilar Windings
- Wire Processing
- Coil Winding
- Wire Procurement Services

If you have any questions or need any information about our [Wire Services](#), feel free to contact us! It only takes one call to get experienced assistance.

Contact us by phone:
(815) 385-1987

Contact us by email:
sales@remingtonindustries.com

DATE | ISS. | REVISION | BY

Drawn by: AG 7/22/26
Drawing rev.: --

Remington
Industries

3521 N. Chapel Hill Rd
Johnsburg, IL 60051 USA
remingtonindustries.com