CERTIFIED ISO 9001:2015

ASIC soporte de su excelencia
SISTEMA DE GESTIÓN DE CALIDAD CERTIFICADO EN ISO 9001:2015 NMX-CC-9001-IMNC-2015

NEMA National Electrical Manufacturers Association

MD WIRE LLC

METALES DIELÉCTRICOS S.A. DE C.V.

2026

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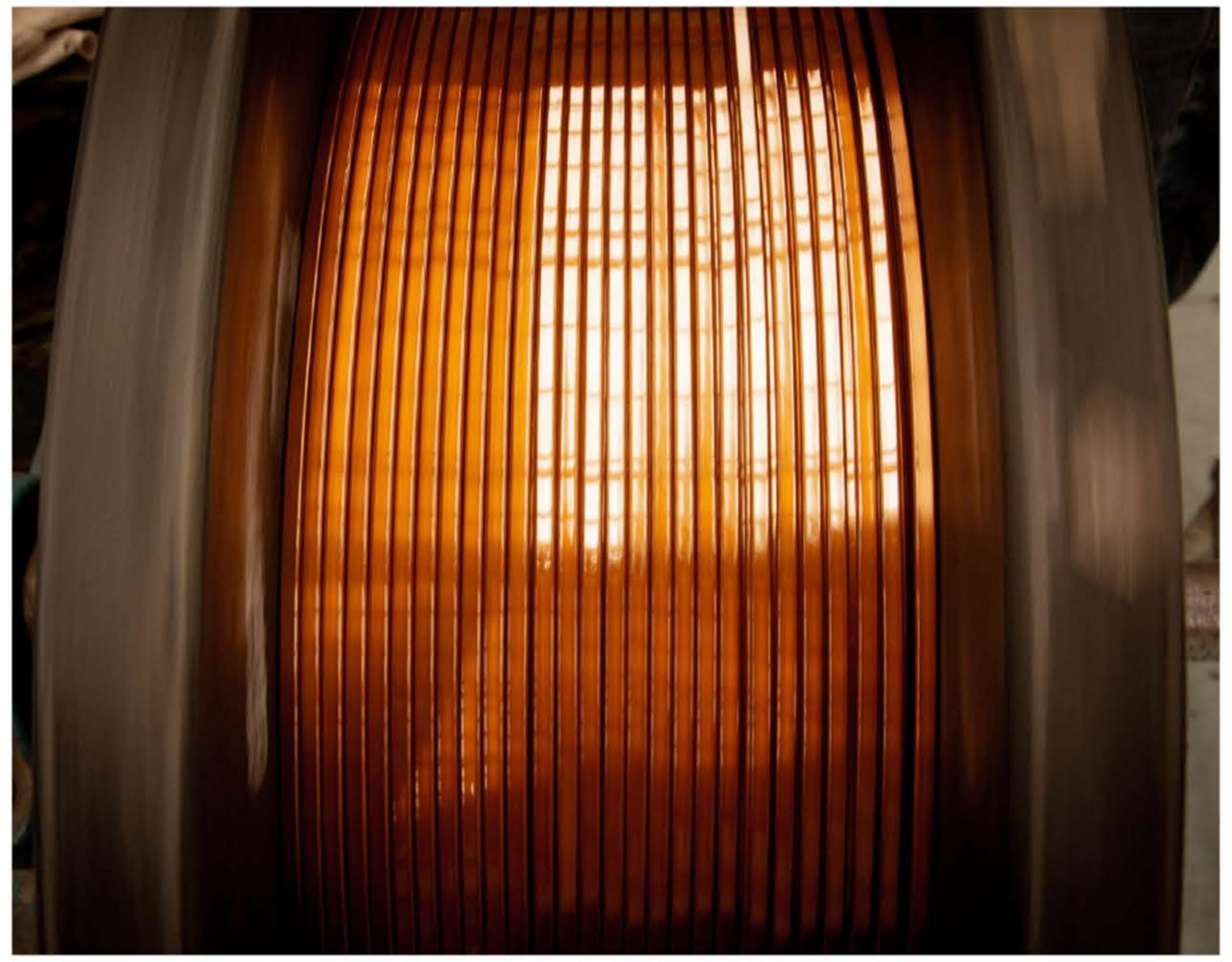
MD WIRE LLC



METALES DIELÉCTRICOS S.A. DE C.V.

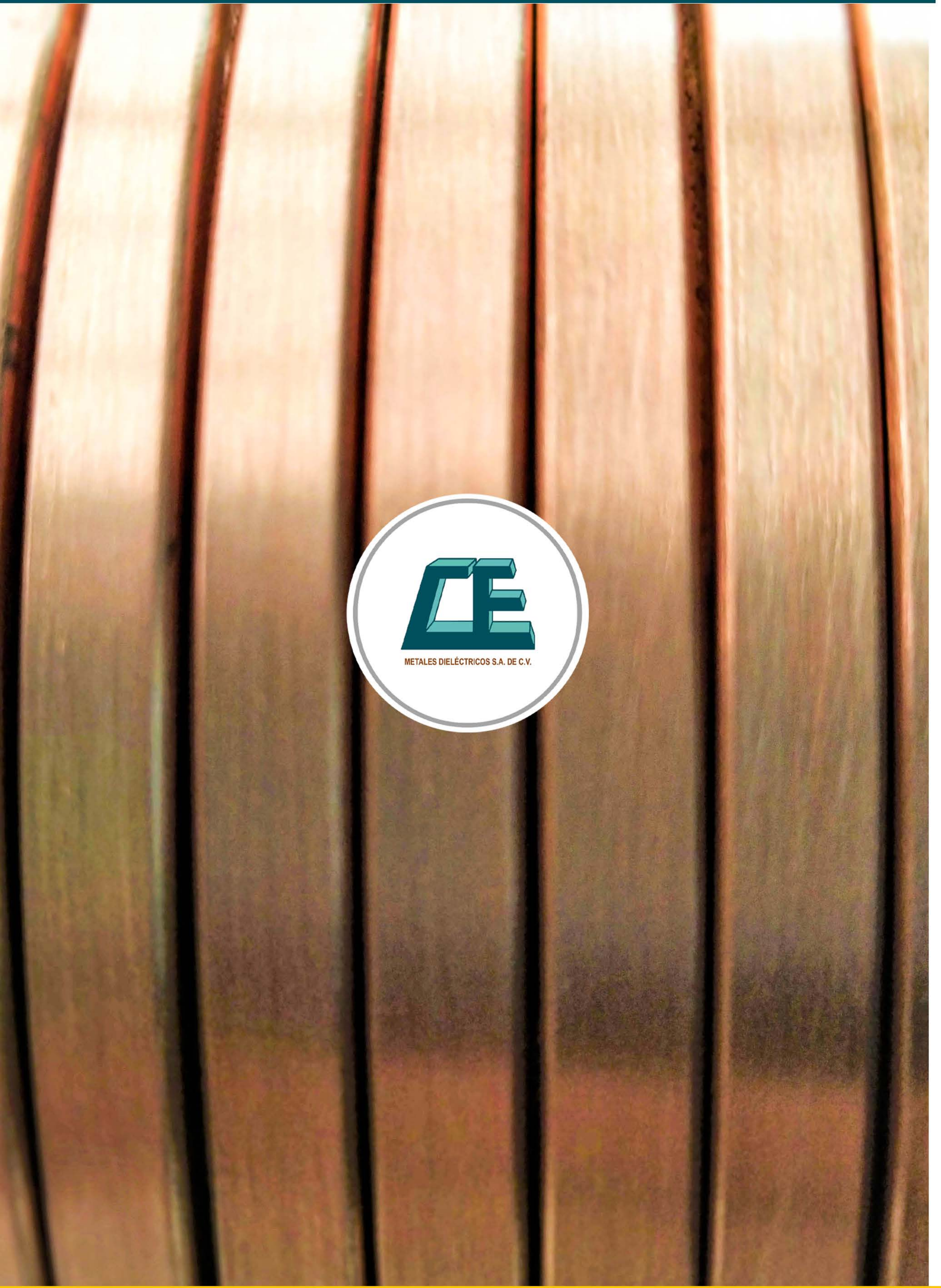
ABOUT US

METAL DIELECTRICOS S.A. DE C.V. / MD WIRE LLC, is a company with 40 years of experience in the industry. We are suppliers to the leading manufacturers and repairers of transformers and motors in Mexico. Since our inception in 1984, we have been committed to using high-quality raw materials and streamlining our supply chain to offer quality products at reasonable prices.

The Copper used as raw material is alloy C11000, which, according to the American Society for Metals manual, exceeds 99.99% purity. In order to meet the needs of our customers, we have incorporated electrolytic grade Aluminum with designation EC1350. These raw materials, along with high-quality imported insulation, ensure optimal performance of our conductors.

Our products adhere to ASTM, ANCE NMX, and NEMA MW1000 standards. In addition, we have been certified in ISO 9001-2015 for over 20 years.

BARE COPPER AND ALUMINUM FLAT BARS



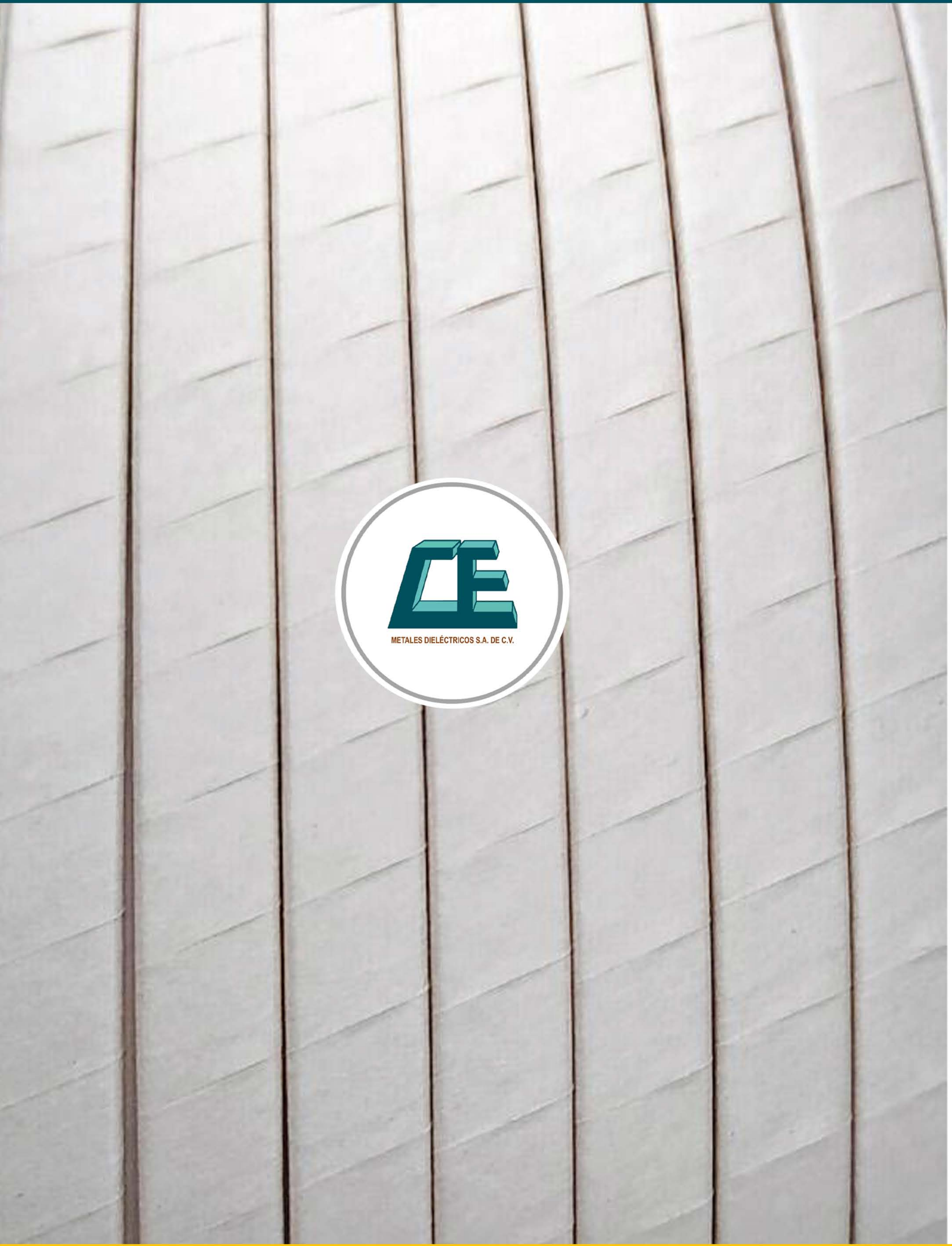
The cross-section of our products is based on ASTM B48 for Copper and ASTM B324 for Aluminum. If you have any specific requirements, we can adapt to tolerances and dimensions.

		COPPER C11000	ALUMINUM E1350
ROUND WIRE		Max. 0.440"	Max. 0.440"
SQUARED WIRE	Side	Mín. 0.091" Max. 0.300"	Min. 0.114" Max. 0.257"
RECTANGULAR WIRE WITH SHARP EDGES	Thickness	Mín. .020” | Max. 0.280"	Mín. .020" | Max. 0.250"
	Width	Mín. 0.100" | Max. 0.800"	Mín. 0.150" | Max. 0.800"
FLAT BAR WITH ROUNDED CORNERS.	Thickness	Mín. .020" | Max. 0.280"	Mín. 0.045" | Max. 0.250"
	Width	Mín. 0.100" | Max. 0.800"	Mín. 0.150" | Max. 0.800"
FLAT BAR WITH ROUNDED EDGES.	Thickness	Mín. .016" | Max. 0.280"	Mín. 0.020" | Max. 0.250"
	Width	Mín. 0.100" | Max. 0.800"	Mín. 0.150" | Max. 0.800"

MD WIRE LLC

PAPER

CLASS A INSULATION OF 90°C TO 105°C



DESCRIPTION

The coated conductor consists of applying from 1 up to 32 or more layers of paper helically and in alternating directions over the bare wire. Different degrees of overlap and splice of the paper tapes can be offered to optimize the properties according to your technical needs. We offer product manufacturing in twin or geminated, triple or single configuration, as required.

APLICATIONS

- Power transformers
- Oil-impregnated transformers
- Encapsulated transformers
- Oil-immersed control transformers
- Special applications

CHARACTERISTICS

Thermal class: 105ºC (A)

- Special hardness with elastic limit
- Reel meter control
- Reel capacity of up to 500kg
- Special arrangements to standardize the product finish
- Dielectric rigidity.

STANDARDS: MW 1000 33 C / A
MW 1000, Section MW- 33 C / A.

*Overlap options are open to your design proposal.

ROUND/SQUARE WIRE

- AWG Size 1-12
- Insulation addition: Tape thickness. Example: 0.0003";/4 layers butt-to-butt increase by 0.024".

RECTANGULAR WIRE

- Thickness: 0.020";-0.280"; Width: 0.100";-1";
- Insulation addition: Tape thickness. Example: 0.003";/4 layers butt-to-butt increase by 0.024";.

TYPES OFPAPER

MD WIRE LLC

- Kraft. Crepe Paper
- Calendered Crepe Paper
- Thermally Stabilized Paper
- Dennison, Muskjö, Cottrel, Cindus Paper

FIBERGLASS (DFPK9)(MR) CLASS F INSULATION OF 155°C

MD WIRE LLC

DESCRIPTION

With its helical application, the fiberglass-coated conductor provides adequate thermal resistance. It is constructed based on the Nema MW 1000 standard. Section MW 41-C. It guarantees high-temperature performance. This insulation is health-friendly as it does not cause skin or respiratory tract issues.

APLICATIONS

- Dry transformers
- Category F motors
- High-voltage generators
- Welding machines
- Its fibrous condition prevents the passage of

CHARACTERISTICS

- Thermal class 155°C (F)
- Dielectric strength 90Volts/0.001”;
- High capacity for high dust and carbon environments (construction and mining)

*Overlap options are open to your design proposal.
**The number of layers may exceed two layers as required by the customer.

ROUND/SQUARE WIRE

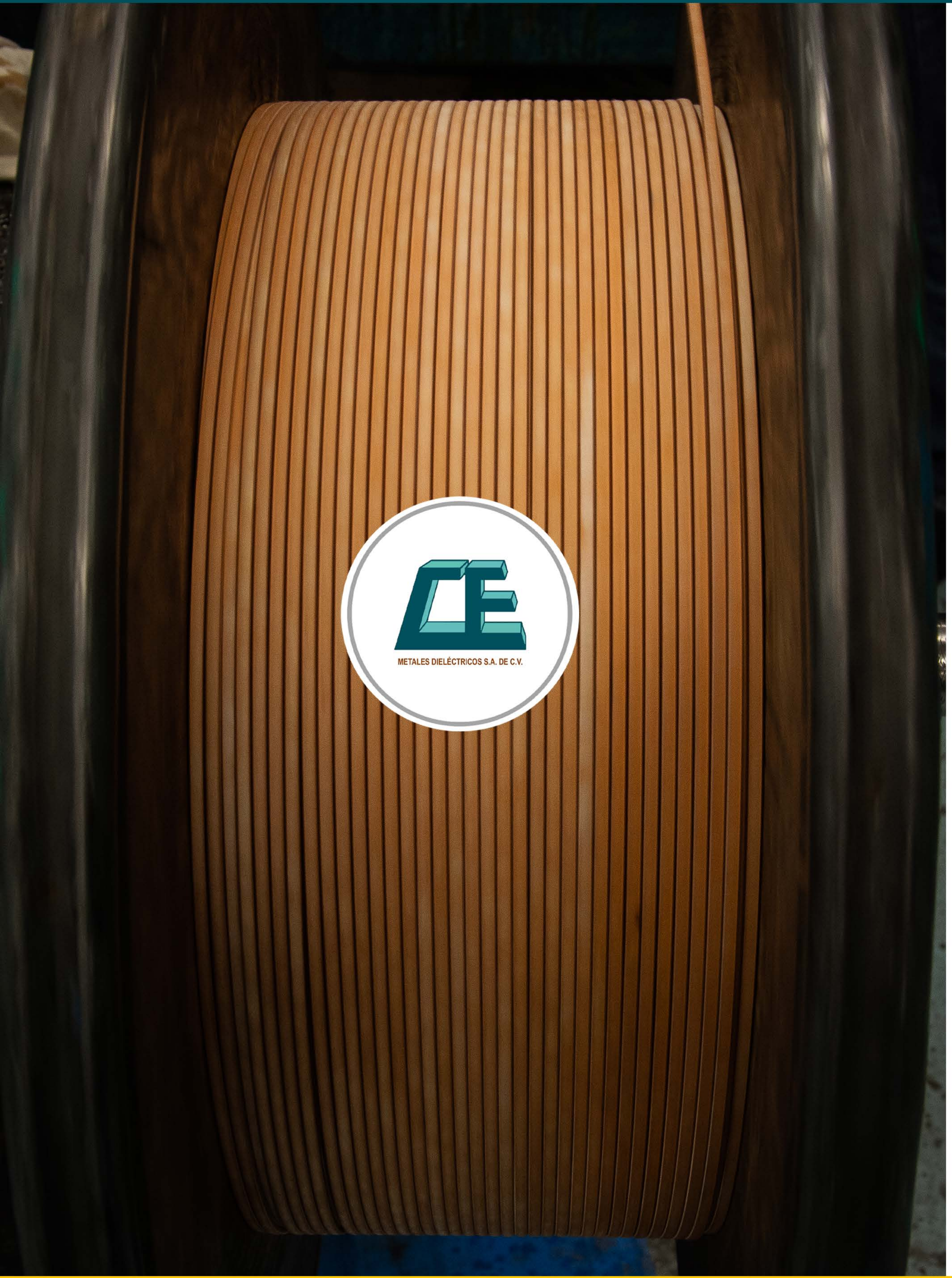
- AWG Size 2 - 8 (square)
- AWG Size 2 - 13 (round)
- nsulation addition: 0.016"

RECTANGULAR WIRE

- Thickness: 0.030”;-0.280”;
- Width: 0.100”;-0.700”;
- Insulation addition: 0.016”;

STANDARDS: Nema MW 1000, Section MW 41-C

CLASS H INSULATION OF 180°C



DESCRIPTION

Our universal polymerization and sealing process guarantees proper performance of the conductor in equipment or coils with a high risk of corona effect or partial discharges.

APLICATIONS

- Dry transformers
- Impregnated transformers
- AC and DC motors
- Preformed coils
- Coils for heavy-duty motors
- Generators
- Special applications

ROUND/SQUARE WIRE

- AWG Size 2 – 13
- AWG Size 2 – 8
- Insulation addition:
- Tape thickness: 0.008”;
- Double layer 0.016”;

CHARACTERISTICS

- Excellent thermal capacity H (180°C)
- Reinforced material resistant to mechanical stress
- Suitable dielectric rigidity (90Volts/0.001")
- Our polymerization and sealing process guarantees proper performance of the conductor in equipment or coils with a high risk of corona effect or partial

RECTANGULAR WIRE

- Thickness: 0.030”;-0.280”;
- Width: 0.100”;-0.700”;
- Insulation addition: 0.016”;

STANDARDS

NEMA MW1000 Section MW51 C Section MW52 C Section MW 53 C

*Overlap options are open to your design proposal

MD WIRE LLC

CLASS F INSULATION OF 155°C

DESCRIPTION

Helically applied insulation, which due to its mineral-based crystalline structure, performs excellently in equipment with partial discharges at high or low voltage. Mica, due to its Mylar support, has good chemical resistance except for sulfuric and phosphoric acid, as well as excellent dielectric capacity.

APLICATIONS

- Equipment exposed to continuous partial discharges
- AC and DC motors
- High-voltage AC motors
- Wind Industry Generators
- Special Coils for Foundry Furnaces
- Preformed Coils

CHARACTERISTICS

- Class F insulation (155°C)
- Highly resistant to overloads
- Resistant to mechanical stress
- Dielectric rigidity /1000Volts/0.001”;
- Due to its mineral content, it offers excellent resistance to corona effect.

*Overlap options are open to your design proposal.

SQUARE WIRE

- AWG Size 2 – 8
- Additional Insulation:
- 1 Layer at 50% = 0.014

RECTANGULAR WIRE

- Thickness: 0.060”;-0.280”;
- Width: 0.100;-0.700;
- Additional Insulation:
- 1 Layer at 50% = 0.014

PEREF (MR)

CLASS F INSULATION OF 155°C

DESCRIPTION

The coated conductor features an insulation system consisting of one or more layers of PEREF (Polyethylen Terephthalate Film) applied helically in the same direction over the conductor. It guarantees a dielectric rigidity of up to 1000V/0.001" and a temperature rating of 155°C. This insulation has applications in dry transformers, DC and AC motors, welding machines, and special

APLICATIONS

- Dry Transformers
- Distribution Transformers- AC and DC Motors
- Welding Machines
- Coil Windings Requiring High Resistance
- Coils in the presence of water.

ROUND/SQUARE WIRE

- AWG Size 2 – 8
- Additional Insulation:
- 1 Layer at 50% = 0.008”;

CHARACTERISTICS

- Excellent Thermal Capacity Class F (155°C)
- Highly resistant to overloads
- Resistant to mechanical stress
- Dielectric rigidity (1000Volts/0.001")
- Hermeticity capable of withstanding the presence of water

RECTANGULAR WIRE

- Thickness: 0.030”;-0.280”;
- Width: 0.100”;-0.700”;
- Additional Insulation:
- 1 Layer at 50% = 0.008”.

*Overlap options are open to your design proposal.

MD WIRE LLC

NOMEX (MR)

CLASS C INSULATION OF 220°C

DESCRIPTION

The coated conductor features an insulation system based on one or more layers of aromatic polyamide tape (NOMEX* applied helically in the same direction or in alternating directions over the bare conductor. When required, impregnation varnish can be included to optimize the tapes adhesion.

APLICATIONS

- Dry transformers
- AC and DC motors
- Coils for heavy-duty motors
- Special applications
- Medium and high-voltage AC motors
- Preformed coils

RECTANGULAR WIRE

- Thickness: 0.030”-0.280”
- Width: 0.100”-0.700”
- Insulation addition:
- Tape thickness: 0.002”
- Single Layer Addition: 0.008”- 0.010”
- Double Layer Addition: 0.016” - 0.018”

ROUND/SQUARE WIRE

- AWG Size 2 – 8
- Insulation addition:
- Tape thickness: 0.0028”;
- Single Layer Addition: 0.008” - 0.010”
- Double Layer Addition: 0.016” 0.018”

CHARACTERISTICS

- Excellent thermal capacity (220°C)
- Highly resistant to overloads
- Resistant to mechanical stress
- Dielectric rigidity /300Volts/0.001”) of Its fibrous structure provides greater consistency in preventing the passage of contaminating particles
- Due to its chemical composition, it is recommended for equipment with a high risk of flammability
- Excellent performance in capacitive resistance tests with Becker

*Overlap options are open to your design proposal.

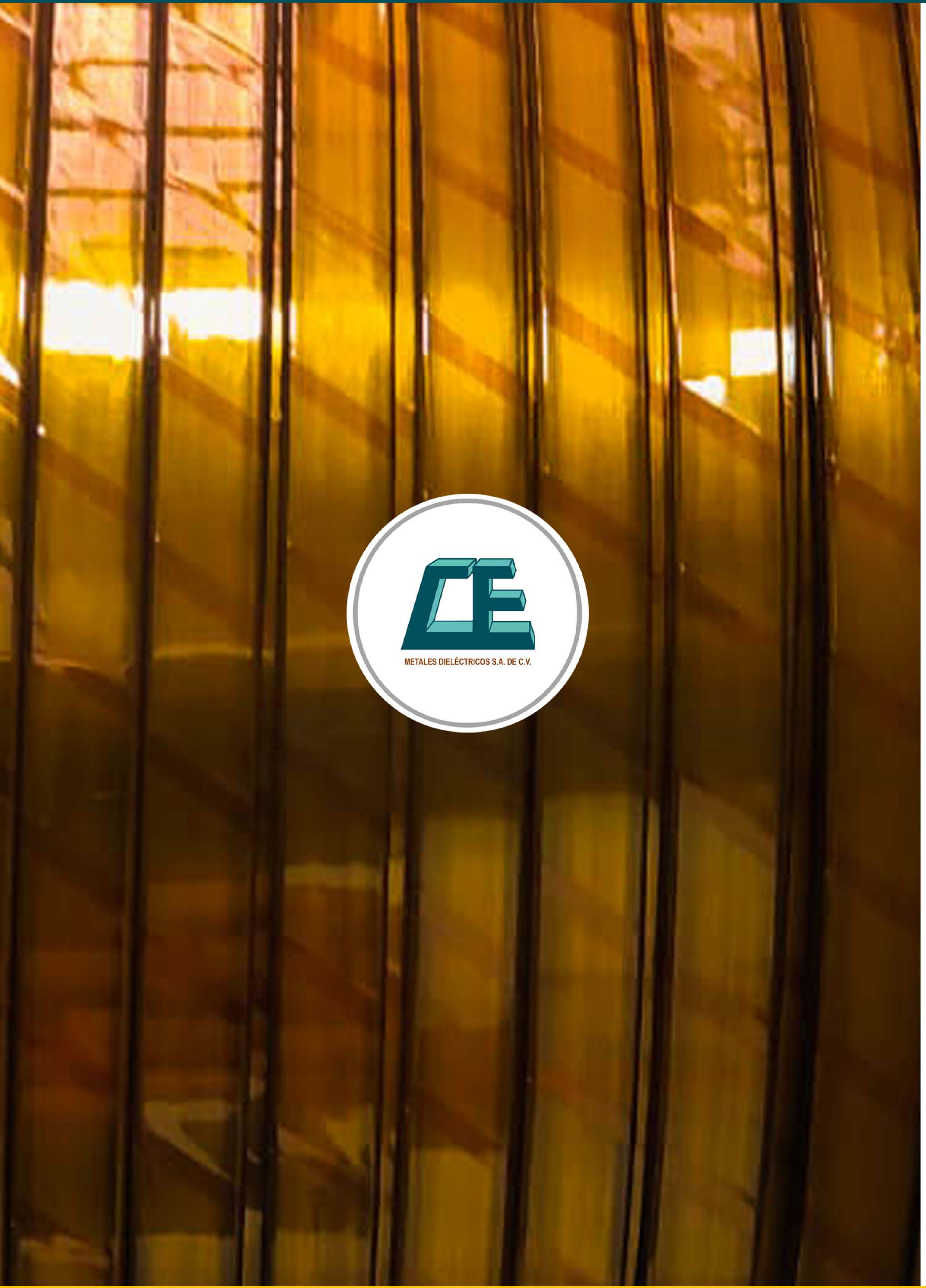
STANDARDS:

- MW 60-A
- MW 60-C
- MW 61-A
- MW 61-C

MD WIRE LLC

POLYIMIDE ㊮

CLASS C+ INSULATION AT 240°C



DESCRIPTION

Polyimide is an insulation film applied helically over the conductor with excellent dielectric rigidity and thermal capacity. Due to its chemical composition, it is compatible with all resins and dielectric oils available in the market, ensuring optimal performance as a universal insulation.

CHARACTERISTICS

- Excellent Thermal Capacity C+ (240°C)
- Replaces and improves enamel wire in gauges 7 to 10 without minimum consumption
- Resistant to Mechanical Stress
- Excellent Dielectric Rigidity (2000 Volts/0.001")
- The tape configuration reduces the chances of aging
- Compatible with Dielectric Oil.

APLICATIONS

- Dry Transformers
- Oil-filled Transformers
- AC and DC Motors
- Encapsulated Transformers
- Special Applications
- Low-voltage or medium-voltage preformed coils.

ROUND/SQUARE WIRE

- AWG Gauge 2 – 12
- Insulation Addition:
- Tape Thickness: 0.001";
- Addition 0.004"; with 50% overlap.

RECTANGULAR WIRE

- Thickness: 0.030";-0.280";
- Width: 0.100";-0.700";
- Insulation Addition:
- Tape Thickness: 0.002";
- Addition 0.008"; with 50% overlap

STANDARDS:

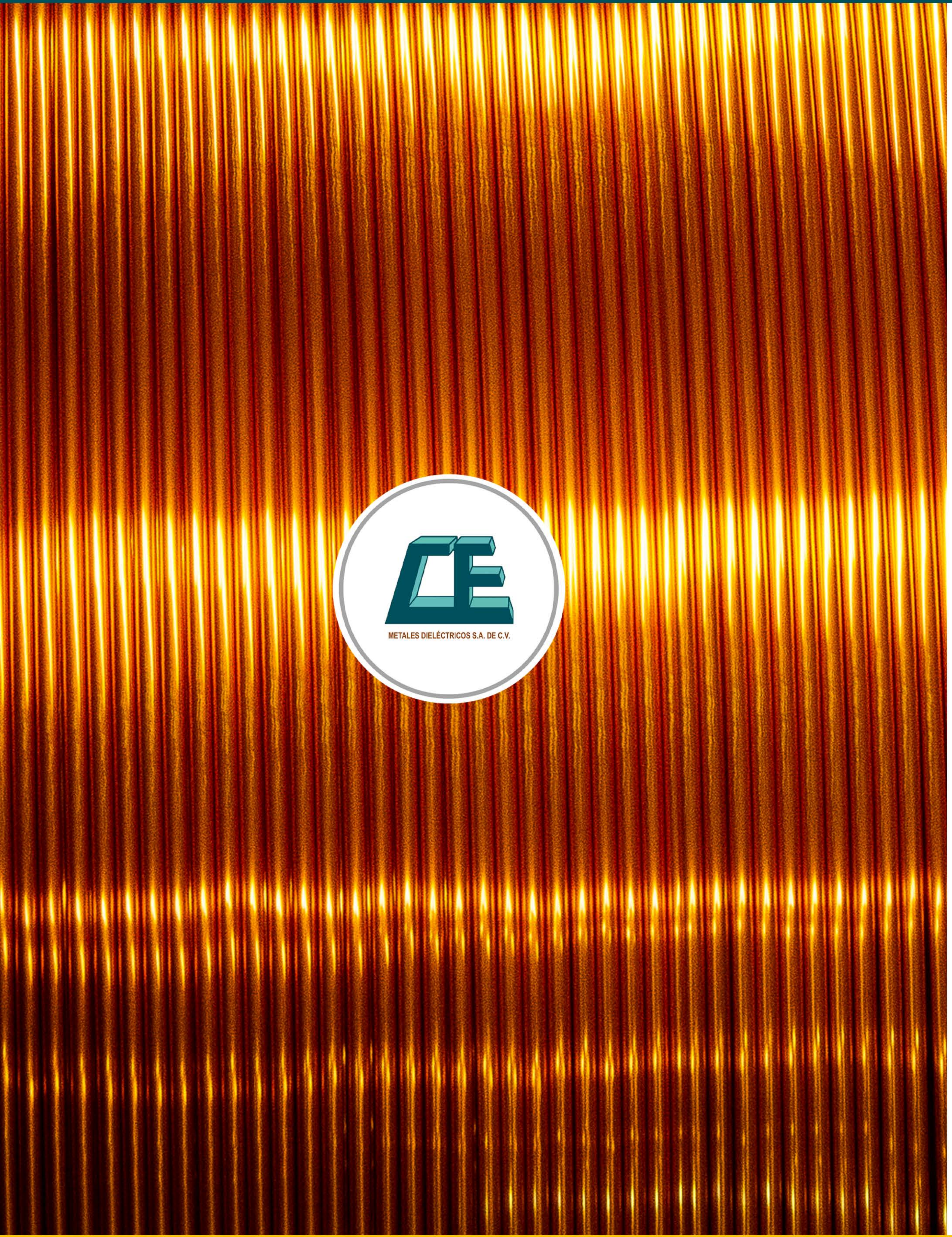
NEMA MW1000,
Section MW 64-C

*Overlap options are open to your design proposal.
**Available in aluminum.

MD WIRE LLC

KAPTON (MR)

CLASS C+ INSULATION AT 240°C



DESCRIPTION

Class C+ Insulation at 240°C. Kapton is a polyimide film with Teflon that, when subjected to a baking process, thermally fuses, replacing and surpassing enamel wire. Due to its thermal and dielectric capabilities, it is recommended for use in motors, as it exhibits excellent resistance to high temperatures.

CHARACTERISTICS

- Excellent Thermal Capacity (240°C according to NEMA; withstands temperatures up to 400°C).
- High Solvent Resistance.
- Highly Resistant to Overloads.
- Resistant to Mechanical Stress.
- Excellent Dielectric Capacity (up to 2000 Volts/0.001”).
- Its impermeable structure provides greater consistency in preventing the passage of contaminating particles.
- Compatible with Dielectric Oil.

APLICATIONS

- Transformers.
- Traction Motors.
- Generators.
- Industrial Motors, AC and DC.
- Preformed Coils.
- Coils for Heavy Equipment Motors.
- Sealed Motors.
- Automotive Fields.
- Special aplications

*Overlap options are open to your design proposal.

**Available in aluminum.

STANDARDS:

NEMA MW1000, Section MW 64-C

RECTANGULAR WIRE

- Thickness: 0.030&”-0.280&”
- Width: 0.100”-0.700”
- Insulation Addition:
- Tape Thickness: 0.0015”
- Addition 0.006” with 50% overlap

ROUND/SQUARE WIRE

- AWG Gauge 2 – 10
- Insulation Addition:
- Tape Thickness: 0.0015”
- Addition 0.006” with 50% overlap

MD WIRE LLC

KAPTON FCR (MR)

CLASS C+ INSULATION AT 240°C

DESCRIPTION FCR

Kapton is a polyimide film with Teflon applied helically over the conductor, providing high resistance to damage caused by the corona effect. Kapton FCR has been developed for use as magnet wire insulation in traction motors and/or railway partial discharge applications, as well as generators where there is a need for improved insulation that performs in partial discharge environments.

CHARACTERISTICS

- Excellent Thermal Capacity C+ (240°C)
. Replaces and improves enamel wire in gauges 7 to 10 without minimum consumption
- Resistant to Mechanical Stress
- Excellent Dielectric Rigidity (1800 Volts/mil)
- The tape configuration reduces damage caused by exposure to partial discharges
- Encapsulated Transformers

APLICATIONS

- Dry Transformers
- High-Risk Motors for Partial Discharges
- AC and DC Motors
- Coils for Heavy Equipment Motors
- Generators
- Special Applications
- Preformed Coils

*Las opciones de traslape están abiertas a su propuesta de diseño.

RECTANGULAR WIRE

- Thickness: 0.030”-0.280”
- Width: 0.100”- 0.700”
- Insulation Addition:
- Tape Thickness: 0.002”
- Addition 0.008” with 50% overlap

ROUND/SQUARE WIRE

- AWG Gauge 2 – 10
- Insulation Addition:
- Tape Thickness: 0.002 to 0.0015
- Addition 0.008 to 0.006”

STANDARDS:

NEMA MW1000, Section MW 64-C.

MD WIRE LLC

PACKAGING

METALES DIELÉCTRICOS S.A. DE C.V.

DOUBLE COLUMBUS PLASTIC REEL

COLUMBUS PLASTIC REEL

PERSONAL LABELING WITH BARCODE

DISK

WOODEN REEL

PLASTIC REEL

WOODEN BLUE REEL

Concerned about the proper handling of the material, we have various methods of spooling it. The options depend on the insulation, weight, and length of the conductor, and these are included in your quote. If you require any other presentation, please notify our sales department.

MD WIRE LLC

