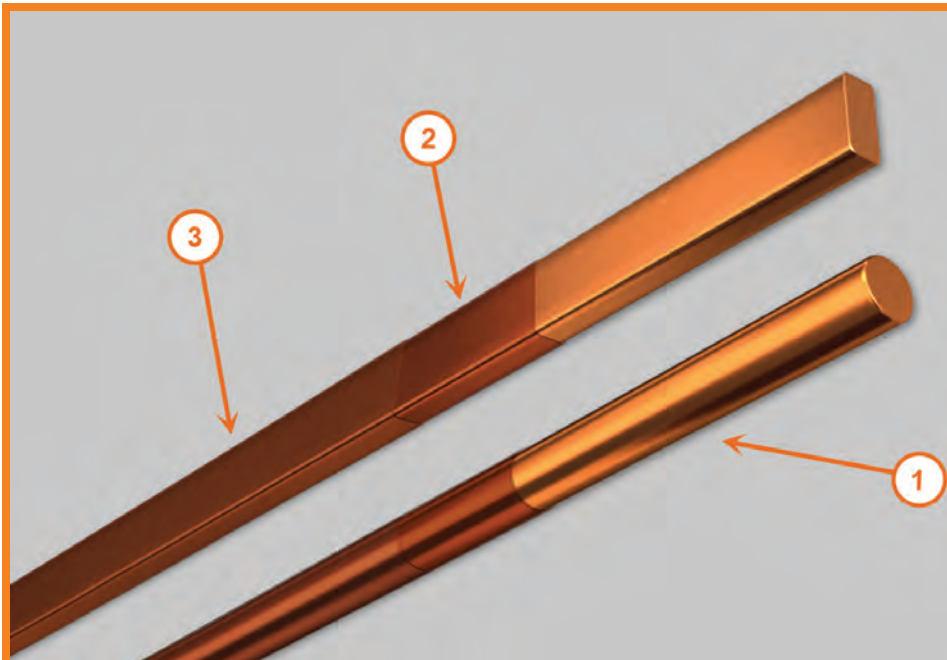


## Magnet Wire

AMIDANEL™ 200 °C



### Description:

- 1.Round, square or rectangular soft copper wire
2. Polyester imide resin as base coat
- 3.Polyamideimide resin as top coat

### Application:

- Open-type motors
- Enclosed motors
- Hermetic motors
- Dry-type transformers
- Automotive coils
- Ballast
- Motors for portable tools

### Features:

- Excellent thermal stability, excellent dielectric and mechanical performance, very good chemical resistance to usual solvents and very good chemical resistance to coolants
- Mechanical performance has been improved on round larger gauge (4-10 AWG) and shaped wires to avoid damage during tough winding processes. Improved product trademark is Amidanel™ Premium.
- Amidanel™ is resistant to Freon 22 and environmental friendly freons as 134-A, 141-B, 404-A, 407-C, 410-A and 507.

### Special Features:

- Coils produced with Amidanel™ should not be exposed to extreme humidity.
- Amidanel™ is not a solderable product by immersion in soldering pot.

### Standards:

This product may be designed according to any of the following standards:

- NMX-J-482-ANCE, NMX-J-489-ANCE, IEC 60317-13, NEMA MW 1000: MW 35-C y MW 73-C (round wire)
- NMX-J-485-ANCE, IEC 60317-29 y NEMA MW 1000: MW 36-C (shaped wire)

Please contact our Technical Department if the requested product should fulfill a different standard from those shown.

### Thermal Class:

- 200 °C, class N

### Colors:

- clear (typical)
- green
- blue

### Certification:

Product certified by Underwriters Laboratories Inc. Records are available on File E87331.

### How to order:

Amidanel™ magnet wire, round, square or rectangular wire, gauge (AWG) or cross-section area (mm<sup>2</sup>), or dimensions (thickness and width in case of rectangular wire), built (single or heavy), color, weight and package

## Magnet Wire

AMIDANEL™ 200 °C



## Round wire production range Amidanel™

Color	Build	Range AWG	Bare wire diameter			
			Minimum		Maximum	
			mm	in	mm	in
clear (typical)	single	14-44	0.048	0.0019	1.643	0.0647
	heavy	4-44	0.048	0.0019	5.227	0.2058
clear (hermetic)	heavy	14-30	0.251	0.0099	1.643	0.0647
blue and green	heavy	14-30	0.251	0.0099	1.643	0.0647

These data may vary due to manufacturing tolerances.



## Shaped wire production range Amidanel™

	Dimensions			
	Minimum		Maximum	
	mm	in	mm	in
Bare thickness	1.0	0.040	5.2	0.204
Bare width	2.5	0.100	1.0	0.551

Maximum width/thickness ratio <sup>(1)</sup>	Maximum cross-section area	
	mm <sup>2</sup>	in <sup>2</sup>
6	40.3	0.0625

(1) Width/thickness ratio has not units.

## Magnet Wire

AMIDANEL™ 200 °C



## Typical performance \*

THERMAL PROPERTIES			MECHANICAL PROPERTIES		
Test	Requirement **	Results	Test	Requirement **	Results
Thermal endurance	Minimum 20 000 h @ 200 °C	219 °C	Adherence and flexibility	20% / 3d	No breaks
Thermoplastic flow	Minimum 300 °C	385 °C	Elongation	Minimum 32%	38%
Heat shock	20% / 3d / 220 °C	No breaks	Springback	Maximum 58°	54°
			Scrape resistance	Minimum average 1 150 g	1 500 g
			Static coefficient of friction	-----	0.100
			Dynamic coefficient of friction	-----	0.120

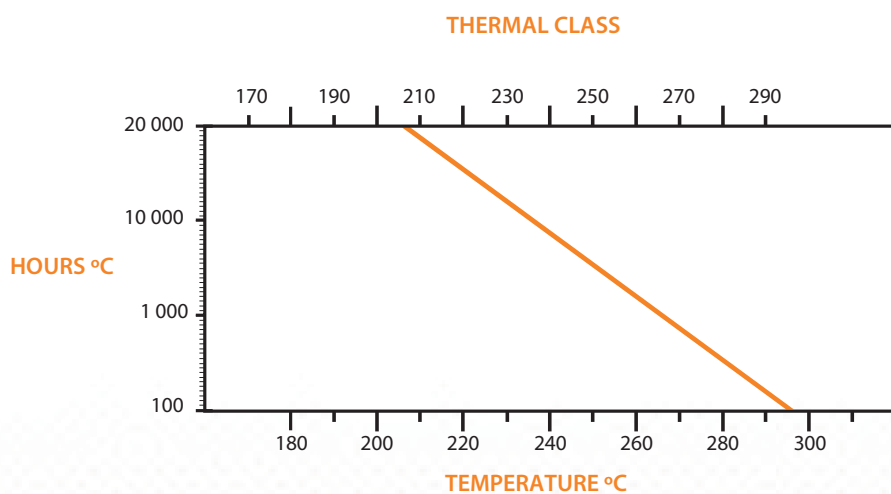
CHEMICAL PROPERTIES			ELECTRICAL PROPERTIES		
Test	Requirement**	Results	Test	Requirement **	Results
Solubility	Xilol, Xilol/Butil Celosolve	Ok	Dielectric Breakdown	Minimum 5 700 V	9 300 V
Refrigerant (R-22) extraction	Not greater than 0.25% of weight of film insulation	0.05%	Dielectric Breakdown at rated temperature	Minimum 4 275 V	8 100 V
Dielectric Breakdown after R-22 conditioning	Minimum 5 700 V	8 700 V	Continuity	Maximum 5 discontinuities @ 1 500 V	Maximum 1 discontinuities
			Pin hole@ 12V	Maximum 2	0

NOTES: \* Typical performance for a Amidanel™ Heavy Build, 18 AWG

\*\* Standard used: NEMA MW-1000 MW35-C, MW73-C

## Magnet Wire

AMIDANEL™ 200 °C



The plot above shows thermal endurance performance for a Amidanel™ Magnet Wire, Heavy build, 18 AWG, tested according to ASTM D 2307. Plot was drawn using data obtained during test procedure until 5 000 h and extrapolated to 20 000 h.

Amidanel™ Magnet Wire fulfills thermal requirements to get thermal class 200°C.