

Magnekon Polytermacon-C®

Magnet Wire



A Viakable Company

Description

The POLYTERMACON-C® magnet wire is basically a POLYTERMACON 200® wire that is coated with a thermoplastic self-bonding film, capable of producing a strong adhesive force among the turns of a coil when heat is applied. This adhesive force, once obtained, will be resistant to overheating and to solvent attacks.

This product is manufactured in Type 1 and Type 2 insulation builds and is offered with a Copper conductor.

The POLYTERMACON-C® magnet wire is recommended for use in electrical equipment with a thermal class of up to 180 °C.

Specifications

Meets the requirements set forth in the following standards:

- NEMA MW 1000, MW 74 for base properties.
- NEMA MW 1000, MW 102 for bond coat properties.

Characteristics

- Ease in forming self-bonding coils.
- Great winding ease.
- Resistant to heat shock.
- High dielectric strength.

Range of Gauges

Insulation Build	AWG	mm
Type 1	21 - 27	0.723 - 0.361
Type 2	21 - 27	0.723 - 0.361

Typical Applications

AUTOMOTIVE

- Alternators.
- Clutch for A/C.

ELECTRONICS

- Coils in color TV yokes.

GENERAL APPLICATIONS

- Diverse types of self-bonding coils.



Technical Data

Polytermacon-C[®] TYPICAL TEST VALUES FOR A POLYTERMACON C[®] Type 2, 24 AWG WIRE (PTC 180).
Typical values only, not intended to be used as a specification.

Test	Specification (ANSI / NEMA MW 1000) (a)	Test Method	Typical Results
Electrical			
Dielectric Strength	≥ 4870 V	NEMA	14500 V
Continuity	≤ 5 @ 1500 V	NEMA	0 @ 3000 V
Mechanical			
Elongation	≥ 28%	NEMA	36%
Adherence and Flexibility	No cracks when elongated 20%, wrapped around a mandrel 3 times the diameter of wire.	NEMA	No cracks
Springback	≤ 67 °	NEMA	68 °
Bond Strength	≥ 30 lb for 18 AWG	NEMA (b)	≥ 30 lb for 24 AWG
Thermal			
Heat Shock	No cracks @ 20% wrapped around a mandrel 3 times the diameter of the wire, before heating for ½ hour @ 220 °C.	NEMA	No cracks
Thermoplastic Flow	≥ 300 °C	NEMA	300 °C
Cement Heat Test	No separation must appear between the turns of a coil with a 4.7 kg weight applied during 5 seconds after heating for 1 hours @ 150 °C.	NEMA	Passes

(a) Based on NEMA MW 72.
(b) Based on NEMA MW 102.