

Magnekon Polytermacon-S®

Magnet Wire



A Viakable Company

Description

The POLYTERMACON-S® magnet wire is made with an enamel based on solderable polyesterimide resins which provide excellent properties, such as solderability and thermal resistance.

POLYTERMACON-S® wire is made in insulation builds: Single and Heavy.

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

UL Designation	Thermal Class	NEMA MW-1000
PS 155	155 °C	MW 26
PS 180	180 °C	MW 77

Specifications

Meets the requirements set forth in the following standards:

- NEMA MW 1000, MW 26 and MW 77.
- UL recognition under file E102627.

Characteristics

- High thermal resistance.
- High dielectric strength.
- Solderable without having to strip the insulating film.
- High thermoplastic flow values.

Range of Gauges

Insulation Build	AWG	mm
Single	20 - 44	0.720 - 0.063
Heavy	20 - 40	0.720 - 0.063

Typical Applications

- Automotive coils.
- Electronic coils.
- Special transformer coils.
- Shaded coils.

NOT RECOMMENDED FOR:

- Applications with high winding stress.
- Motors with slit winding.

(For these applications use Polytermacon-SN®.)



Technical Data

Polytermacon-S® TYPICAL TEST VALUES FOR A POLYTERMACON-S® HEAVY 25 AWG WIRE
Typical values only, not intended to be used as a specification.

Test	Specification (ANSI / NEMA MW 1000) MW 77	Test Method	Typical Results
Electrical			
Dielectric Strength	≥ 4725 V	NEMA	11760 V
Continuity	≤ 5 @ 1000 V	NEMA	0 (Zero)
Mechanical			
Elongation	≥ 30%	NEMA	33%
Adherence and Flexibility	No cracks when elongated 15%, wrapped around a mandrel 1 time the diameter.	NEMA	No cracks
Springback	≤ 72 °	NEMA	68 °
Scrape Resistance	Average of 3 measurements, ≥ 635 grams.	NEMA	684 grams
Chemical			
Solderability	Maximum 6 seconds immersion time @ 470 °C.	NEMA	Passes
Solubility	Not softened sufficiently to expose the bare conductor.	NEMA	OK
Thermal			
Heat Shock	No cracks @ 20% wrapped around a mandrel 3 times the diameter of the wire, before heating for ½ hour @ 200 °C.	NEMA	No cracks
Thermoplastic Flow	≥ 225 °C	NEMA	320 °C