

PAC-240

Wire insulations and coatings

Datasheet

PAC-240 is a film insulation made of polyimide resins. It is a Class 240°C (465°F) thermal rated insulation with exceptional resistance to chemical solvents and burnout. The outstanding thermoplastic flow of over 400°C (750°F) and its ability to withstand excessive overloads extends the use of magnet wire in extreme conditions. ML is unaffected by prolonged exposure to varnish solvents and its compatible with virtually all systems.

Applied in the form of a polyamic acid solution, it is converted with heat to a continuous film with excellent resistance to radiation, chemicals and cryogenic temperatures. PAC-240 meets the requirements of NEMA MW 16 and listed with Underwriters Laboratories

Typical applications are within fractional and integral horsepower motors, high temperature continuous duty coils and relays, hermetic and sealed units, heavy duty hand tool motors, encapsulated coils, speaker voice coils.

Electrical properties

Property	NEMA MW-1000	ASTM D1696	IEC 851	JIS 3003	
Dielectric strength at 25°C (77°F)	3.8.1.1	69-75	13-4.2, 3, 4	11.1	11.1 kV
Dissipation factor at 220°C (428°F) - 1 kHz		107-114			0.08

Mechanical properties

Property	NEMA MW-1000	ASTM D 1696	IEC 851	JIS C 3003	
Adhesion and flexibility					
no snap	3.3.1.1	141-148	8-5.1.1	8.1	
20% snap	3.3.1.1	141-148		9.1	
Cut-through temperature	3.50.1.1	61-68			>500°C (932°F)
Heat shock					
20% stretch - ½ h at 260°C (500°F)	3.5.1.1	156-162	9-3.1	14.1	Pass 3d
Scrape resistance	3.59.1.1	170-177	11-6.1	10.2	1275g

Physical properties

Thermal endurance above 240°C (464°F)					
Hours at temperature	20000	10000	5000		1000
Temperature °C (°F)	242 (468)	270 (518)	280 (536)		315 (599)

Disclaimer: Recommendations are for guidance only, and the suitability of a material for a specific application can be confirmed only when we know the actual service conditions. Continuous development may necessitate changes in technical data without notice. This datasheet is only valid for Alleima materials.