

# Formvar

## Wire insulations and coatings

### Datasheet

Formvar enamel is made from vinyl acetal resins produced as a smooth uniform film. Formvar has excellent mechanical properties such as abrasion resistance and flexibility. The film will withstand excessive elongation without rupture. When stressed during winding, Formvar has a tendency to craze upon contact with solvents such as toluene, naphtha, xylol, etc. Formvar can be removed mechanically or chemically during terminal preparation.

Typical applications are within motors, random and precision wound coils, oil filled and dry transformers, armature and generator winding where "tough" film may be required.

### Electrical properties

Property	NEMA MW-1000	ASTM D1696	IEC 851	JIS C 3003	MW-15-C
Dielectric strength at 25°C (77°F)	3.8.1.1	69-75	13-4.2, 3, 4	11.1	13.1 kV
Dissipation factor at 220°C (428°F)		107-114			0.05

### Mechanical properties

Property	NEMA MW-1000	ASTM D1696	IEC 851	JIS C 3003	MW-15-C
Adherence and flexibility	3.3.1.1	141-148	8-5.1.1	8.1	Pass 1d
no snap	3.3.1.1	141-148		9.1	Pass 1d
20% snap					
% elongation at break	3.4.1.1	122-129	6-3.0		36
Mandrel at break	3.4.1.1	122-129			Pass 1d
Cut-through temperature	3.50.1.1	61.68			261°C (502°F)
Heat shock 20% stretch - ½ h at 200°C (392°F)	3.5.1.1	156-162	9-3.1	14.1	Pass 3d

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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.