



FORMVAR

Proven performance in oil-filled applications. Excellent hydrolytic stability.

Rea Material Code: F

Rea Insulation Code: 02

Insulation Material Description: Polyvinyl Formal

Thermal Class: 105

Shape: Round

Conductor: Copper

NEMA Specification: MW 15-C

IEC Specification: 60317-1

MARKETS

Transformers:
- General
- Utility Distribution
- Transformers

TYPICAL APPLICATIONS

Oil-filled transformers, superconducting coils for cryogenic applications, and motors

FEATURES AND BENEFITS

- Resistant to mechanical and winding abuse due to superior flexibiity and abrasion resistance
- Performs well in in-line flattening processes.
- Compatible with most varnishes and impregnation compounds.
- Retains insulating properties when exposed to cryogenic temperatures.
- Compatible with transformer oils.

AVAILABILITY

Single
8-28 AWG
Heavy
1-28 AWG

TYPICAL PROPERTIES

This data is typical of 18 AWG copper, heavy build insulation only. It is not intended to be used to create specification limits.

THERMAL

Thermal Endurance		
		>110°C
Thermoplastic Flow	**minimum**	**typical**
	180°C	230°C
Heat Shock (20% 3X)		
		20% 3x 175°C
Stress Relief Temperature		
		150°C

MECHANICAL

Mandrel Flexibility	minimum	typical
After Elongation	20% 3x OK	30% 1x OK
After Snap	3x OK	1x OK
Elongation	32%	40%
Unilateral Scrape	**minimum**	**typical**
Avg. of 3 sides	1150 gms	1600 gms

ELECTRICAL

Dielectric Breakdown	
@RT	10 kV
@ 105° C	7 kV
High Voltage Continuity	
NEMA @ 1500 V DC	5 faults/100 ft max
Typical @ 2000 DC	0-1 faults/100 ft

CHEMICAL

Completeness of Cure
5 min boil 70/30
Transfer Oil System
Retained Flexibility-1x OK

	Retained Flexibility- 90% of original breakdown voltage

Resistance to Solvents	
After 24 hrs @ RT	Xylene 50/50 Cellosolve/Xylene Perchloroethylene 1% NaOH 28% Sulfuric Acid Gasohol