

Thermal Class: 105°C



Features and Benefits

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

- Resistant to mechanical and winding abuse due to superior flexibility 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.

General Information

References are provided for comparative purposes

Round

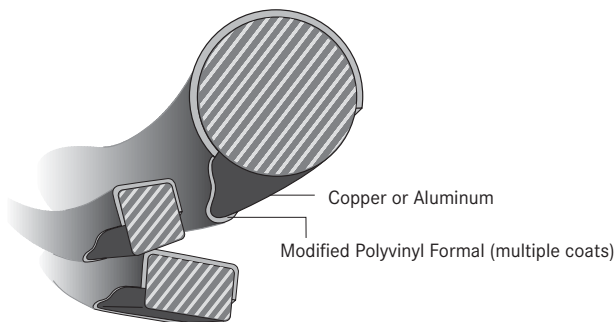
NEMA: MW 15-C, MW 15-A

Square & Rectangular

NEMA: MW 18-C, MW 18-A

Typical Applications:

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



Availability

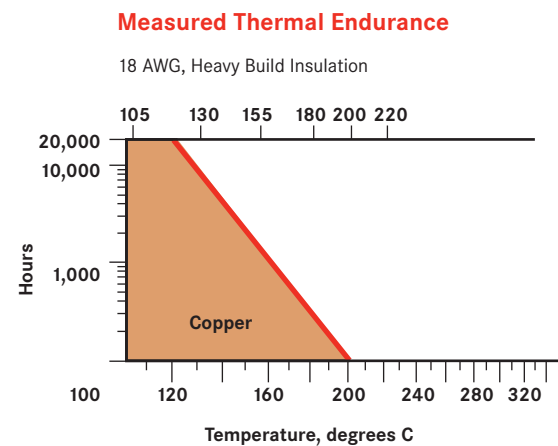
Round	single	heavy
copper	8-23 AWG	4-23 AWG
aluminum	8-18 AWG	4-18 AWG
Square		heavy
copper		1-14 AWG
Rectangle		heavy
copper		
	Min. Width	.081"
	Max. Width	.750"
	Min. Thickness	.030"
	Max. Thickness	.292"

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		
20,000 hr life	>110°C	
Thermoplastic Flow	minimum	typical
	180°C	230°C
Heat Shock (20% 3x)		
1/2 hr at 175°C minimum no cracks		
Stress Relief Temperature		
150°C		



Mechanical

Mandrel Flexibility	minimum	typical
After Elongation	20% 3x OK	30% 1x OK
After Snap	3x OK	1x OK
Unilateral Scrape		
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 feet max
typical @ 2000 V DC:	0-1 faults/100 feet

Chemical

Completeness of Cure	
5 min boil 70/30	
Alcohol/Toluene:	Pass
Transformer Oil System	
Test in Sealed Tubes after 168 hrs @ 150° C:	
Retained Flexibility-1x OK	
Retained Flexibility-90% of original breakdown voltage	
Resistance to Solvents Including	
After 24 hrs @ RT: Pass,	
Xylene	
50/50 Cellosolve/Xylene	
Perchloroethylene	
1% NaOH	
28% Sulfuric Acid	
Gasohol	