



MAGNEFLEX

MagneFlex features aluminum conductors insulated with a high temperature engineered resin. The advanced polymer coatings have been very successful in transformer applications.

Rea Material Code: **SRADAL**

Rea Insulation Code: **6R**

Insulation Material Description: **Poly Phenyl Sulfone**

Thermal Class: **200**

Shape: **Round**

Conductor: **Aluminum**

NEMA Specification: **MW 15-A**

MARKETS

Transformers:
 General
 Utility Distribution
 Transformers
 Utility Power Transformers
 Specialty Transformers

TYPICAL APPLICATIONS

Utility transformers

FEATURES AND BENEFITS

- Provides uniformity of insulation thickness
- Excellent resistance to stress cracking
- Excellent dielectric properties
- Up to 100% reduction in test failures
- Increased winding speeds
- Lower water absorption
- Lower total unit cost
- Extremely durable
- Easy to strip

Edge Contours

Radius corner Full round

AVAILABILITY

Heavy

2-6 AWG

TYPICAL PROPERTIES

All values noted are typical on square or rectangular conductors. Actual properties of individual lots will vary within specification limits.

THERMAL

Heat Shock (20% 3X)

Pass 15% Elongation @ 220°C

Pass 30% Elongation @ 220 °C

Transition Temperature

220°C/428°F

Operating Temperature

200°C/392°F

Thermal Conductivity

2.42 Btu-in/hr-ft² °F
.35W/mk

MECHANICAL

| Tensile | ksi | Mpa |
|---------|-----|-----|
|---------|-----|-----|

| | | |
|----------|------|----|
| Strength | 10.1 | 70 |
|----------|------|----|

| | | |
|---------------------------|---------|--|
| Elongation @ break (23°C) | 60-120% | |
|---------------------------|---------|--|

| Flexural Modus | ksi | Mpa |
|----------------|-----|-----|
|----------------|-----|-----|

| | | |
|--|-----|------|
| | 350 | 2400 |
|--|-----|------|

Flexibility

15 percent

ELECTRICAL

Dielectric Breakdown

| | |
|------------------|--------|
| @ 3 mil per side | 3-8 kV |
|------------------|--------|

Dielectric Constant

| | |
|--------|------|
| @ 60Hz | 3.44 |
|--------|------|

| | |
|--------|------|
| @ 1kHz | 3.45 |
|--------|------|

Volume Resistivity

>10¹⁵ ohm-cm

Dissipation Factor

| | |
|--------|--------|
| @ 60Hz | 0.0006 |
|--------|--------|

CHEMICAL

Specific Gravity

1.29

Water Absorption @ 24 hr

0.0037

Insulation Thickness

6-8mils/0.1016-0.254 mm