

## APPLICATIONS

### Typical Applications

Coils (particularly random wound), universal motors  
 Relays  
 Lighting ballast transformers  
 Fractional HP motors  
 Torroidal coils  
 Ignition coils

## PRODUCT DESCRIPTION

### Thermal Class: 155

Solderable without prior insulation removal  
 Polyamide (Nylon†) overcoat provides excellent mechanical protection during winding and insertion  
 †DuPont trademark

### Features and Benefits

Excellent dereeling and windability on high speed and/or automated winding machines.  
 Produces compact coils and windings.  
 Self-fluxing providing excellent soldered connections with solder temperatures as low as 360°C.  
 Exceptional film flexibility and adhesion resisting winding damage.  
 Extremely resistant to a variety of solvents including most varnishes and hardener catalysts.

## GENERAL INFORMATION

References are provided for comparative purposes  
 NEMA: MW 80-C  
 UL: File No. E37683

### Standard Color:

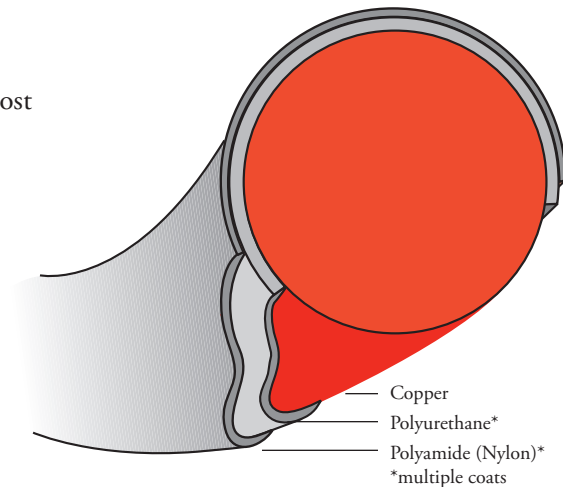
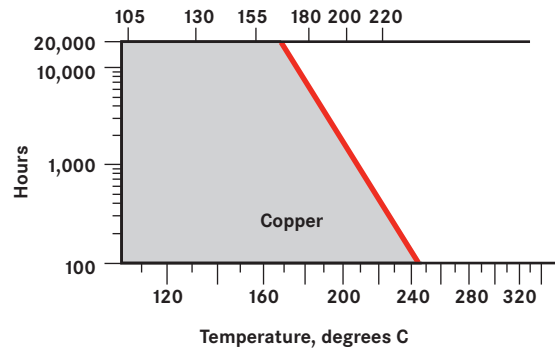
Red

### Availability:

Single and Heavy 10-54 AWG  
 Quad 10-31 AWG

### Measured Thermal Endurance

18 AWG, Heavy Build Insulation



## 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: >160°C

**Thermoplastic Flow**

Min: 200°C

Typical: 230°C

**Heat Shock (20% 3x)**

1/2 hr @ 175°C min: no cracks

**Solderability**

@ 430°C (800°F): 3 seconds (flux recommended)

**Stress Relief Temp:**130°C

**MECHANICAL****Mandrel Flexibility**

After Elongation    min: 20% 3x OK  
                          typical: 30% 1x OK

After Snap            min: 3x OK  
                          typical: 1x OK

**Unilateral Scrape**

Avg. of 3 sides    min: 1150 gms  
                          typical: 1500 gms

**ELECTRICAL****Dielectric Breakdown**

@ RT: 8.5 kV

@ 155°C: 6.0 kV

**High Voltage Continuity**

NEMA @ 1500 V DC:

5 faults/100 feet max

Typical @ 3000 V DC:

0-1 faults/100 feet

**CHEMICAL****Resistance to Solvents**

After 24 hrs @ RT: Pass,

Solvents Including:

Xylene

50/50 Cellosolve/Xylene

Perchloroethylene

1% NaOH

28% Sulfuric Acid

Freon TMS

Procedure followed to determine published value:

NEMA = National Electrical Manufacturers Association

JIS = Japanese Industrial Standards

IEC = International Electrotechnical Commission

ASTM = American Society for Testing and Materials