



NYSOL

Solderable without prior insulation removal. Polyamide (Nylon*) overcoat provides excellent mechanical protection during winding and insertion.

Rea Material Code: **NS**

Rea Insulation Code: **16**

Insulation Material Description: **Polyurethane overcoated with Polyamide (Nylon)**

Thermal Class: **155**

Shape: **Round**

Conductor: **Copper**

NEMA Specification: **MW 80-C**

IEC Specification: **60317-21**

UL Number: **E37683**

MARKETS

Motors/Generators:
General
Residential

Transformers:
Specialty Transformers

TYPICAL APPLICATIONS

Coils (particularly random wound), universal motors, relays, lighting ballast transformers, fractional HP motors, torroidalcoils, and ignition coils

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.

AVAILABILITY

Single	
	14-38 AWG
Heavy	
	10-38 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		
		>160°C
Thermoplastic Flow	minimum	typical
	200°C	255°C
Heat Shock (20% 3X)		
		20% 3x @ 175°C
Stress Relief Temperature		
		130°C

MECHANICAL

Mandrel Flexibility	minimum	typical
After Elongation	20% 3x OK	30% 1x OK
After Snap	3x OK	1x OK
Unilateral Scrape	minimum	typical
Avg. of 3 sides	1150 gms	1500 gms

ELECTRICAL

Dielectric Breakdown	
@RT	10 kV
@ 155° C	6 kV
High Voltage Continuity	
NEMA @ 1500 V DC	5 faults/100 ft max
Typical @ 2000 DC	0-1 faults/100 ft

CHEMICAL

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