



SUPER HYSLIK 220

Rea Material Code: **TAIHT**

Rea Insulation Code: **24**

Insulation Material Description: **Theic Modified Polyester overcoated with Polyamide Imide (AI)**

Thermal Class: **220**

Shape: **Round**

Conductor: **Copper**

NEMA Specification: **MW 37-C**

UL Number: **E37683**

MARKETS

Motors/Generators:

- General
- Comm & Ind
- Generator
- Traction

Automotive:

- General

TYPICAL APPLICATIONS

High speed motor windings with difficult insertion and winding characteristics, dry-type transformers, automotive alternator stators, and solenoids

FEATURES AND BENEFITS

- Excellent moisture resistance
- Improved dual insulation system, modified to optimize scrape resistance and surface lubricity
- Improved windability and processibility. Specially engineered topcoat designed for improved surface lubricity and toughness
- Superior performance in hermetics (see chemical data on following page)

Basecoat

Excellent adhesion and flexibility High thermal endurance High temperature dielectric Overload resistant Resists thermoplastic flow

Topcoat

Improved surface toughness Improved surface lubricity Abrasion resistant Heat shock resistant Moisture resistant Chemical resistant Varnish craze resistant

AVAILABILITY

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		
	>220°C on copper	
Thermoplastic Flow	minimum	typical
	300°C	350°C
Heat Shock (20% 3X)		
	20% 3x @ 240°C	
Stress Relief Temperature		
	160°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	1700 gms
Repeated Scrape	minimum	typical
700 gms	90 strokes	120 strokes
Dynamic C of F	minimum	typical
		0.0 6

ELECTRICAL

Dielectric Breakdown		
@RT	11 kV	
@ 200° C	7 kV	
Insulation Resistance		
@ RT	5x 10 ¹³ ohms	
@ 200°C	9.2x10 ¹⁰ ohms	
Corona Inception Voltage	minimum	typical
		580V

Heavy

1-32 AWG

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	Perchloroethylene 1% NaOH 28% Sulfuric Acid Gasohol and others
After 30 mins @ 60°C	Xylene Butyl Cellosolve/Xylene

Retained Dielectric

72 hrs Exposure + 300°C Conditioning	3.5 kV
72 hrs Exposure +150°C Conditioning	10 kV

R-22 Extractables

<.0 8%