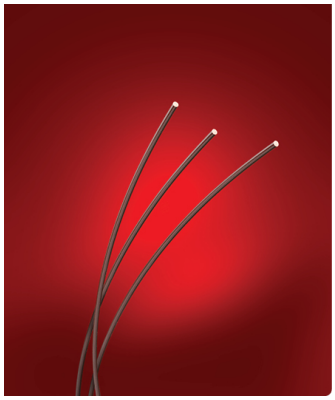

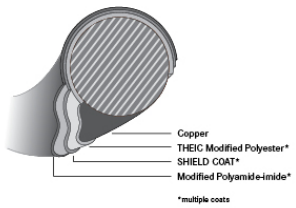

PULSE SHIELD SD

Rea Material Code: TAIHSD

Rea Insulation Code: 26

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

Thermal Class: 200

Shape: Round

Conductor: Copper

NEMA Specification: MW 35-C

IEC Specification: 60317-13

UL Number: E37683

MARKETS

Motors/Generators:
- General
- Comm & Ind
- Generator

Automotive:
- General

TYPICAL APPLICATIONS

High speed windings with difficult insertion and winding characteristics for inverter-driven motors, high frequency transformers, and high voltage motors

FEATURES AND BENEFITS

- Resistant to voltage stresses generated by high frequency, rapid rise time, voltage spikes typically introduced by IGBT-type inverters. Motor life is increased significantly over standard MW-35C magnet wire under these voltage stresses and across a wide temperature range
- Improved insulation protection against transient spikes, high frequencies, elevated voltage levels, and short rise time pulses without increasing insulation thickness
- Excellent resistance to thermoplastic flow (cut-through), abrasion and heat shock
- Excellent resistance to heat and solvent shock conditions encountered in varnishing and encapsulating processes

AVAILABILITY

Heavy
12-26 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		
		>200°C
Thermoplastic Flow	**minimum**	**typical**
	300°C	350°C
Heat Shock (20% 3X)		
		20% 3x @ 220°C
Solderability		
		not designed to be self-solderable
Stress Relief Temperature		
		160°C

MECHANICAL

Mandrel Flexibility	minimum	typical
After Elongation	20% 3x OK	25% 3x OK
After Snap	3x OK	3x OK
Unilateral Scrape	**minimum**	**typical**
Avg. of 3 sides	1150 gms	1300 gms
Dynamic C of F	**minimum**	**typical**
		0.0 6

ELECTRICAL

Dielectric Breakdown	
@RT	11 kV
@ 200° C	7 kV

Dielectric Breakdown	minimum	typical
	5.7 kV	11 kV
Corona Inception Vltage	**minimum**	**typical**
		580V
Pulse Endurance Test		
		20,000 Hz, 2000 V, 0.025 microsecond rise time 150°C, 50% Duty Cycle- Twisted pairs 18 HTAIH Reference= 600 seconds 18 HTAIHSD > 80,000 seconds
Pulse Endurance Index >100		

	Life of product/life of same size and build MW-35 (reference)
High Voltage Continuity	
NEMA @ 1500 V DC	5 faults/100 ft max
Typical @ 2000 DC	0-1 faults/100ft

CHEMICAL

Resistance to Solvents	
After 24 hrs @ RT	Xylene 50/50 Cellosolve/Xylene Perchloroethylene 1% NaOH 28% Sulfuric Acid Gasohol
Retained Dielectric	
72 hrs Exposure + 300°C Conditioning	3.5 kV
R-22 Extractables	
	.0 8%