

Technical Data Sheet

Secondary Insulation

Pedigree[®] 6180 S
(6180-S Polyester Resin)

Polyester Impregnating Resin

Pedigree® 6180 S

Product Description

Pedigree® 6180 S is a 100%-reactive, unsaturated polyester resin in styrene monomer. It requires the addition of a peroxide catalyst for proper cure.

Areas of Application

Impregnation of motor windings including stators and high-speed armatures

Features and Benefits

- Chemically promoted for low temperature cure
- Low viscosity
- High bond strength at elevated temperature
- 3 day catalyzed pot life - no need for meter-mix dispensing equipment
- UL recognized insulation systems up to Class 240

Application Methods

- Trickle
- Dip-and-Bake

Transportation / Storage

Store below 25°C / 77°F in a dry controlled environment out of direct sunlight. This material should be suitable for use stored under these conditions in the original sealed containers for two (2) months from the date of shipment.

Failure to store this product as recommended above may lead to deterioration in product performance.

Keep containers tightly sealed to minimize evaporation. Refrigeration is recommended for long term storage.

Mix product thoroughly before use

See Technical Bulletin TI-4001 for tank maintenance instructions

Health / Safety

Refer to the Material Safety Data Sheet.

Typical Properties of Material as Supplied

Property	Conditions	Value	Units
Viscosity	25°C / 77°F	150 - 200	cP
Catalyst	2% by weight	ELAN-Plus™ C 8 Catalyst	
Gel Time	82°C / 180°F - w/2% C 8	8 – 15 ^[1]	minutes
Viscosity Reducer		ELAN-Plus™ BS-215 Diluent	
Gel Time Adjuster		ELAN-Plus™ BS-6440 Inhibitor	
Weight per Gallon	25°C / 77°F	9.0 - 9.4	pounds
Flash Point	ASTM D93	26 79	°C °F

^[1] Gel time may drift during shipment and storage. Refer to Technical Bulletin TI-4001 for adjustment instructions.

Pedigree® 6180 S

Application / Curing Schedule

Add ELAN-Plus™ C 8 Catalyst in amount specified above and mix thoroughly.

Apply resin by trickle or dip.

Cure for 30 minutes at 82°C / 180°F - or - 20 minutes at 93°C / 200°F.

Cure schedule is based on time after unit reaches specified temperature.

Typical Mechanical Properties

Property	Conditions	Value	Units
Twisted Coil Bond Strength ASTM D2882 over MW 35	25°C / 77°F	28	pounds
	150°C / 302°F	26	pounds
Hardness	Shore D	85 - 90	

Typical Electrical Properties

Property	Conditions	Value	Units
Dielectric Strength	ASTM D149 – 1.5 mils	3400	volts/mil

UL Recognized Insulation Systems (ELANTAS File E87039)

Thermal Class	System
Class 130	PDG 1, 2, 6, 12, 106, 107, 110, 111
Class 155	PDG 3, 9, 102, 108, 86-155-1
Class 180	PDG 14, H-1, 91-180-1, 86-180-5
Class 200	PDG 7, 10
Class 220	PDG 15
Class 240	PDG 16

The above properties are typical values and are not intended for specification use.

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