ELANTAS

Preliminary Technical Data Sheet

Electrical Insulation Materials

ELAN-Tron® MC 62-US Yellow Resin
ELAN-Tron® W 363 Blue Hardener

Two-Component Epoxy Encapsulant

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ELAN-Tron® MC 62-US / W 363

Product Description

ELAN-Tron® MC 62-US Yellow Resin and ELAN-Tron® W 363 Blue Hardener are a two-component, room temperature curing, self-extinguishing epoxy system.

Areas of Application

Potting and encapsulation for transformers and submersible pumps

Features and Benefits

- UL 94 V-0 listed
- Low viscosity
- No Halogens
- Suitable for service up to 155°C
- Room temperature cure

Application Methods

- Vacuum Casting / Potting
- Bench Casting / Potting

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 twelve (12) months from the date of shipment.

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

Mix individual components thoroughly before use.

Health / Safety

Refer to the Safety Data Sheet.

Typical Properties of Material as Supplied

Property	Conditions	Value		Units
		ELAN-Tron® MC 62-US Yellow Resin	**ELAN-Tron® W 363 Blue Hardener**	
Viscosity	25°C / 77°F	9,000 – 13,000	10 - 30	cP
Color		Yellow	Blue	
Weight per Gallon	25°C / 77°F	14.2 – 14.6	7.9 – 8.3	pounds
Flash Point	ASTM D93	> 94 > 201	> 94 > 201	°C °F
Mix Ratio	Parts by weight Parts by volume	100 100	13 23	

Typical Properties of Mixed Materials

Property	Conditions	Value	Units
Mixed Viscosity	25°C / 77°F 40°C / 104°F	1,000 – 4,000 500 – 1,200	cP cP
Color (mixed)		Green	
Pot Life (double viscosity)	25°C / 77°F – 200 mL 40°C / 104°F – 200 mL	25 - 35 15 - 25	minutes minutes
Gel Time	25°C / 77°F – 200 mL	1 – 2	hours

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Curing Schedule

Mix Resin and Hardener in the ratio specified until homogeneous as indicated by an even green color.

Mixed material will harden within 1 - 2 hours at 25°C / 77°F. Full properties will develop over 5 - 7 days at room temperature.

For optimum results, cure for 24 hours at room temperature plus 16 hours at 60°C / 140°F.

The cure schedules above are based on time after the unit reaches the specified temperature and are recommendations only. The user is responsible for determining the optimum cure conditions for their application.

Typical Mechanical Properties

Property	Test method	Conditions	Value	Units
Tensile Strength	ASTM D638	25°C / 77°F	4700	psi
Elongation	ASTM D638	25°C / 77°F	< 0.1	%
Hardness	ASTM D2240	Shore D	86	
Glass Transition Temp. (Tg)	ASTM E1545	TMA	56	°C
Coefficient of Thermal Expansion	ASTM E831	Above Tg Below Tg	140 40	ppm / °C ppm / °C
Thermal Conductivity	ASTM C518		0.85 – 0.95	w/m°K
Flame Resistance Rating	UL 94 UL 94	4 mm 1.5 mm	V0 HB	
Relative Thermal Index	UL 746 (str)	4 mm 1.5 mm	155 155	°C °C
Thermal Shock, 10 cycles	ASTM D1674	-55°C to 180°C	pass	

Typical Electrical Properties

Property	Test Method	Conditions	Value	Units
Dielectric Strength	ASTM D149	ASTM D149 – 125 mils	> 700	volts/mil
Dissipation Factor	ASTM D150	60 Hz @ 25°C / 77°F	.016	
Dielectric Constant	ASTM D150	60 Hz @ 25°C / 77°F	4.4	
Volume Resistivity	ASTM D257	25°C / 77°F	1.5×10^{14}	ohm-cm
Relative Thermal Index	UL 746 (Elec)	1.5 mm 4 mm	155 155	°C °C

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