

**THERMOFIGHT FR 859/LV
FLAME RETARDANT ELECTRO INSULATING RESIN**

PRODUCT:	A semi-rigid, filler extended electro insulating resin	
DESCRIPTION:	Two component, ambient temperature curing epoxy resin	
SPECIAL FEATURES:	Flame Retardant – Halogen Free, Impact Resistant, – Safe Handling/ Very low dermatitic properties	
COLOUR:	Resin:	Pale Blue
	Hardener:	Clear Amber
	Mixed Colour:	Pale Blue
MIXING RATIO:	By Weight	By Volume
	100 Parts Resin	100 Parts Resin
	17 Parts Hardener	28 Parts Hardener
SPECIFIC GRAVITY / 25°C:	Mixed Resin:	1.50 – 1.61 1.5 g/cm ³
VISCOSITY / 25°C:	Resin:	15 000 – 20 000 mPa.s
	Hardener:	2 000 – 2 500 mPa.s
	Mixed Resin:	6 000 – 7 500 mPa.s
POTLIFE / 25°C / 250g CAST:	25 - 30 Minutes	
GELTIME	/ 10°C / 250g CAST:	75 – 90 Minutes
	/ 25°C / 250g CAST:	35 – 40 Minutes
	/ 35°C / 250g CAST:	25 – 35 Minutes
SETTING TIME/ 10°C / 250g CAST:	2 – 3 Hours	
	/ 25°C / 250g CAST:	45 – 50 Minutes
	/ 35°C / 250g CAST:	30 – 40 Minutes
<u>TYPICAL ELECTRICAL PROPERTIES</u>		
DIELECTRIC STRENGTH / 25°C: (DIN 16946)	30 kV/mm	
LOSS FACTOR TAN δ 23°C/50Hz: (DIN 53483)	0.01 – 0.02	
DIELECTRIC CONSTANT / 23°C/50Hz: (DIN 53483)	5.3	
SURFACE RESISTIVITY / 23°C: MEASURED / 2Kv	1 x 10 ¹⁴	
VOLUME RESISTIVITY / 23°C:	3 x 10 ¹⁰ Ohm/cm	

TYPICAL PHYSICAL CHARACTERISTICS

FLASHPOINT (Open cup):	>220°C
FLAMMABILITY: Test IEC 707:	Class VO
TENSILE STRENGTH: (DIN 53455)	>50 MPa
FLEXURAL STRENGTH: (DIN 53452)	100 – 105 MPa [N/mm ²]
COMPRESSION STRENGTH: (DIN 53452)	105 – 110 MPa [N/mm ²]
IMPACT STRENGTH: (DIN 53453)	5 – 6 kJ/m ²
ELONGATION: (DIN 43455)	2%
WATERABSORPTION: 25h / 23°C: (DIN 53495)	10 – 15 mg
LINEAL SHRINKAGE:	0.5%
HARDNESS AFTER: 24 HOURS / 10°C: 24 HOURS / 25°C: 7 DAYS / 25°C:	Shore D 45 – 50 Shore D 85 – 90 Shore D 85 – 90
HARDNESS: (CURED 7 DAYS / 25°C) At 60°C At 80°C At 100°C	Shore D 60 Shore D 55 Shore D 50
HEAT RESISTANCE: (Cure 7 days / 25°C)	The product is suitable for applications up to 70°C

TYPICAL CHEMICAL PROPERTIES

RESISTANCE:	To Water, diluted Acids, Alkaline: good/very good
	To Oil, Grease: resistant
	To Solvents: generally good
	Not resistant to Ketones, Esters, Chlorinated Hydrocarbons

NOTE: INDIVIDUAL TESTS ARE RECOMMENDED

STORAGE STABILITY:	Stored in original packaging under dry and cool conditions – 12 months
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TOXICITY INDEX SABS TEST METHOD 1:

TOXICITY: The Eli-Cast FR 859/LV resin is particularly user friendly, non-toxic at ambient temperatures. Contains no volatile ingredients and halogen compounds. This product has very low skin irritation potential. However, for good industrial hygiene, gloves should be worn and adequate ventilation must be ensured during application.

NOTICE: The technical specification and/or our technical advice whether verbal, in writing or by trials is given in good faith and based on our test results obtained but without warranty. It does not release the user from the obligation to test the products supplied by us or any third party as to the suitability for the intended application.

The application, use and processing of the products are beyond our control and Elite Chemical Industries (Pty) Ltd's legal obligation in respect of any sale of its products shall be determined by the terms of its conditions of sale.

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