HETRON™ FR 615 INF-40 Resin

Version: 1.0_20250602

Overview

HETRON FR 615 INF resin is a promoted halogenated, low viscosity flame retardant[(1)] epoxy vinyl ester resin. Laminates made with HETRON FR 615 INF resin are capable of meeting ASTM E-84 Class I flame spread of <25. Benefits include:

- Low viscosity for infusion processing
- Excellent corrosion resistance
- Excellent mechanical properties including impact strength and toughness

[(1)] Laminates produced using this resin will burn if provided with sufficient heat and oxygen. The degree of flame retardancy of the cured polyester resin is characterized by the ASTM E-84 tunnel test. This test is performed under strictly controlled conditions where a flame spread rating is assigned according to comparisons with test set-point materials. The behavior of the cured composite under these controlled conditions can vary from an actual fire situation.

Applications

This product is intended for infusion processing applications.

Typical Liquid Resin Properties

Property at 25°C (77°F) unless otherwise marked	Value	Unit	Notes
Brookfield Viscosity	140	cps (mPas)	#2 @ 30 rpm
Percent Solids	52	%	
Specific Gravity	1.13	gm/cc	
Gel Time	40	minutes	See below
Color	<5		Gardner method

Gel time measured using 1.25 phr of a 50/50 blend of MEKP 925 / CHP at 73°F.

Typical Cured Resin Properties

Property at 25°C (77°F) unless otherwise marked	Value	Value	Test Method
Tensile Strength	13,000 psi	94 MPA	ASTM D638
Tensile Modulus	500 ksi	3.4 GPa	ASTM D638
Tensile Elongation at Yield	4.6%	4.6%	ASTM D638
Tensile Elongation at Break	5.0%	5.0%	ASTM D638
Flexural Strength	21,000 psi	145 MPa	ASTM D790
Flexural Modulus	520 ksi	3.6 GPa	ASTM D790
Heat Deflection Temperature	227 °F	108 °C	ASTM D648

Resin at 52% non-volatiles catalyzed with 1.0% BPO, cured two hours at 71°C (160°F), then one hour at 93°C (200°F), post-cured two hours at 138°C (280°F)

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Standard package
Steel drum with net weight of 230 kgs (507 lbs).

Commercial Warranty
Three months from the date of shipment, when stored in accordance with the storage conditions stated below.

Storage
All other conditions being equal, higher storage temperatures will reduce product stability and lower storage temperatures will extend product stability. Store at temperatures below 25°C / 77°F. Avoid exposure of storage tanks and storage containers to heat such as direct sunlight, steam pipes, and other heating sources.

Containers: Keep containers sealed to prevent moisture pick-up and monomer loss. Do not store drums and other small containers outdoors. Mild mixing is recommended after prolonged storage. Rotate stock.

Bulk Storage: Consult with your ALTA Performance Materials account representative for a guide to best practices on bulk resin storage and handling.

Notice
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ALTA Performance Materials requests that the user reads, understands, and complies with the information contained herein and the current Safety Data Sheet.

[i]All properties are typical values. Results may vary. Typical values are not a guaranteed analysis of any specific lot or specification.
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© June 25