Technical Datasheet

INEOS Composites

AROTRAN™ 1001 INF Resin for Infusion Processing

Arotran™ 1001 Infusion Resin Series Highlights

Arotran™ 1001 Infusion Resin represents a new era of modified epoxy vinyl ester. Arotran™ 1001 utilizes new technology that increases stability, strength and surface profile, building on the proven history of resilience, excellent fatigue life, blister resistance and toughness, meeting manufacturer demands of flawless, long lasting performance. The new technology developments in Arotran™ 1001 have resulted in increased physical properties, with a 25% increase in tensile strength and elongation alone.

Excellent Fatigue Life
Significantly Improved Mechanical Properties
Tensile Elongation Increase of 25%
User Friendly Processing
Minimal Air Entrapment
Good Surface Profiles with Minimal Shrink
Faster Wet-out

Recommended Product Application

Arotran™ 1001 Infusion Resins are recommended for Infusion, RTM and RTM "Light" applications.

Typical Liquid Properties

Data shown is representative of Arotran 1001.

Property	Value	Unit	Test Method
Gel Time	35	Minutes	HC-04A
Gel to Peak Exotherm	10	Minutes	HC-04A
Peak Exotherm	330	°F	HC-04A
Brookfield Viscosity (LVT #3 @/60 rpm)	145	cps	ISO 2555

Gel time was tested @77°F/25°C with 1.5 grams MEKP-9 Catalyst in 100 grams of resin.

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Typical Cured Resin Properties

Property	Value	Unit	Test Method
Tensile Strength	9500	psi	ISO 527-1
Tensile Modulus	520	ksi	ISO 527-1
Tensile Elongation	2.2	%	ISO 527-1
Flexural Strength	14100	psi	ISO 178
Flexural Modulus	560	ksi	ISO 178
Heat Deflection Temperature	83	°C	ISO 75-2
Ultimate Heat Deflection Temperature[1]	99	°C	ISO 75-2
Clear Cast Panels post cured 24hrs @140°F			
[1]Ultimate HDT post cured 2 hrs @60°C + 3 hrs @138°C			

Product Information

Each end-user should evaluate the performance of the resin in conjunction with other materials, resins, gelcoats, under conditions which simulate laminate design, production procedure and anticipated field exposure before use. For technical information on the performance of the resin, contact your INEOS Composites Technical Representative.

Certificates and Approvals

The manufacturing, quality control and distribution of products, by INEOS Composites, comply with one or more of the following programs or standards: Responsible Care, ISO 9001, ISO 14001, and OHSAS 18001.

Standard Package

Steel Drum with Net Weight of 220kgs (485lbs). DOT Label Requirement: Flammable Liquid

Commercial Warranty

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

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Storage

Drums: Store at temperatures below 25°C. Storage life decreases with increasing storage temperature. Avoid exposure to heat sources such as direct sunlight or steam pipes. To avoid contamination of product with water, do not store outdoors. Keep sealed to prevent moisture pick-up and monomer loss. Mild mixing is recommended after prolonged storage. Rotate stock.

Bulk: See INEOS Composites's Bulk Storage and Handling Manual for Polyesters and Vinyl Esters. A copy of this may be obtained from INEOS Composites at 1-800-523-6963

Notice

All information presented herein is believed to be accurate and reliable, and is solely for the user's consideration, investigation and verification. The information is not to be taken as an express or implied representation or warranty for which INEOS Composites assumes legal responsibility. Any warranties, including warranties of merchantability, fitness for use or non-infringement of intellectual property rights of third parties, are herewith expressly excluded.

Since the user's product formulations, specific use applications and conditions of use are beyond the control of INEOS Composites, INEOS Composites makes no warranty or representation regarding the results which may be obtained by the user. It shall be the sole responsibility of the user to determine the suitability of any of the products mentioned for the user's specific application.

INEOS Composites requests that the user reads, understands and complies with the information contained herein and the current Material Safety Data Sheet.