Technical Datasheet

INEOS Composites

AROPOL™ 7221 Chemical Resistant Isophthalic Polyester Resin

Description

AROPOL 7221 resin is a medium viscosity, unpromoted isophthalic polyester. The resin has high strength and high heat distortion temperature.

Applications and Use

AROPOL 7221 resin can be used for contact molidng, filament winding, press molding, filled molding compounds and sand grout compounds.

Alternative Products

AROPOL 7241 T-15 is the prepomoted and thixotropic version of this resin. AROPOL 7220 is recommended where maximum chemical resistance is required.

Typical Liquid Resin Properties

Property(1) at 25°C (77°F) unless noted	Value	Unit
Non-Volatiles Content	64	%
Viscosity, Brookfield	1700	mPas (cps)
Acid Number	16	(solids basis)
Gel Time with 1% BPO in 180°F Bath (SPI Gel)	3.5	minutes
Total Time in 180°F SPI Gel	4.8	minutes
Peak Exotherm in 180°F SPI Gel	420	°F

(1) Properties are typical values based on material tested in our laboratories. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

Typical Mechanical Properties

Cured Casting Property(2) at 25°C (77°F)	Value (US)	Unit	Method
Tensile Strength	11,000	psi	ASTM D638
Tensile Modulus	5.4	10 (5) psi	ASTM D638
Tensile Elongation	2.4	%	ASTM D638
Flexural Strength	19,500	psi	ASTM D790
Flexural Modulus	5.9	10 (5) psi	ASTM D790
Heat Deflection Temperature	228	°F	ASTM D648
Barcol Hardness	45	Units	ASTM D2538

(2) Catalyzed with 1% BPO, cured for two hours at 160°F, one hour at 200°F, and postcured for

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two hours at 280°F.

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: ISO 9001, Responsible Care, ISO 14001 and OHSAS 18001.
Standard Package	Steel Drum with Net Weight of 220 Kg (485 Lb) or Bulk Wagon
Commercial Warranty	Three months from date of shipment, when stored in accordance with the storage conditions stated below.
Storage	Drums - Store at temperatures below 25°C (77°F). Storage life decreases with increasing storage temperature. Avoid exposure to heat such as direct sunlight or steam pipes. To avoid contamination of the product with water, do not store outdoors. Keep containers sealed to prevent moisture pick-up and monomer loss. Mild mixing is recommended after prolonged storage. Rotate stock. Bulk - Refer to INEOS Composites's Bulk Storage and Handling Manual for Polyesters and Vinyl Esters. A copy of this may be obtained from INEOS Composites at +1.614.790.3333 or 800.523.6963. All other conditions being equal, higher storage temperatures will reduce product stability and lower storage temperatures will extend product stability.
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

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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.