Technical Datasheet

INEOS Composites

POLARIS™ MR 80301-14 Marble & Onyx Casting Resin

Description

POLARIS MR 80301-14 resin is a promoted, swing resin designed for filled casting applications. It is designed for room temperature cure using methy ethyl ketone peroxide initiator.

- Uniform low exotherm cure
- High clarity
- Good follow-through cure
- Suitable for tubs

Application and Use

POLARIS MR 80301-14 resin is typically used in the production of marble and onyx vanity tops, tubs and wall panels. Utilize resin only at ambient/liquid temperatures above 15°C (60°F).

Typical Liquid Resin Properties

Property at 25°C (77°F)	Value	Unit
Percent Solids	70	%
Viscosity, Brookfield, LVF #3 spindle, 60 rpm	1100	mPas (cps)
Gel Time*	14	minutes
Gel to Peak Exotherm Time	11	minutes
Peak Exotherm Temperature	290	°F
1.0 g DDM-9 in 100 grams of resin		

Properties are typical values and should not be considered as a guaranteed analysis of any specific lot.

Typical Mechnical Properties

Property	Value (SI)	Value (US)	Method
Tensile Strength	69 MPa	10,000 psi	ASTM D-638
Tensile Modulus	4480 MPa	6.5 psi x 10^5	ASTM D-638
Tensile Elongation at Break	1.6 %	1.6 %	ASTM D-638

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Flexural Strength	107 MPa	15,590 psi	ASTM D-790
Flexural Modulus	3930 MPa	5.7 psi x 10^5	ASTM D-790
Heat Distortion Temperature	56°C	132°F	ASTM D-648

Casting of 3.175 mm (0.125") initiated with 1.25% MEKP initiator, postcured 2 hours at 138°C (280°F).

Liquid and Cured Color



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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, ISO 14001 and OHSAS 18001.
Standard Package	55 gallon steel drum with Net weight of 220 KG (485 Lbs)
Commercial Warranty	Three months from date of shipment when stored in accordance with the conditions stated below.
Handling and Storage	Drums - Store at temperatures below 25°C (77°F). Storage life decreases with increasing storage temperature. Avoid exposure to heat sources such as direct sunlight or steam pipes. Mild agitation is recommended after prolonged storage. To avoid contamination of product with water, do not store outdoors. Keep sealed to prevent moisture pick-up and monomer loss. Rotate stock. Bulk - See INEOS Composites's Bulk Storage and Handling Guide for Polyesters and Vinyl Esters. A copy of this may be obtained from INEOS Composites at +1.614.790.3333 or 1.800.523.6963. All other conditions equal, higher storage temperatures will reduce stability and lower storage temperature 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 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.

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