Technical Datasheet

INEOS Composites

AROPOL™ AF 50401 Series Acrylic Bonding Resin

Description

AROPOL AF 50401 series resins are pre-promoted, thixotropic polyester resins. The resins are designed for use as acrylic back-up resins where calcium sulfate filler is used. The product will bond well to some, but not all, acrylics when calcium carbonate filler is used. The products are low shrink and allow high filler loading.

Typical Liquid Resin Properties

Property[1]	Aropol AF 50401 T	Aropol AF 50401 TC	Unit
Styrene Content	34	38	%
Neat Viscosity (RV #2@20 rpm)	300	270	mPas (cps)
Neat Thix Index	1	2.8	
Filled Viscosity 1 (LV #3@60 rpm)	2000	1700	mPas (cps)
Filled Thix Index 1	1.6	2.5	
Filled Viscosity 2 (LV #3@20 rpm)	4700	3300	mPas (cps)
Filled Thix Index 2	1.7	2.6	

Fill Test 1: Filled viscosity run using 50% by weight Calcium Sulfate filler at 77°F.
Fill Test 2: Filled viscosity run using 62% by weight Omyaset 5-FL filler at 77°F.

Typical Curing Characteristics

Aropol AF 50401 T-12 Gel Time	Gel Time, minutes	Gel to Peak, minutes	Peak Exotherm, °F
Neat Gel Test	10	6	305
Filled Gel Test 1	12	20	200
Filled Gel Test 2	7	15	175

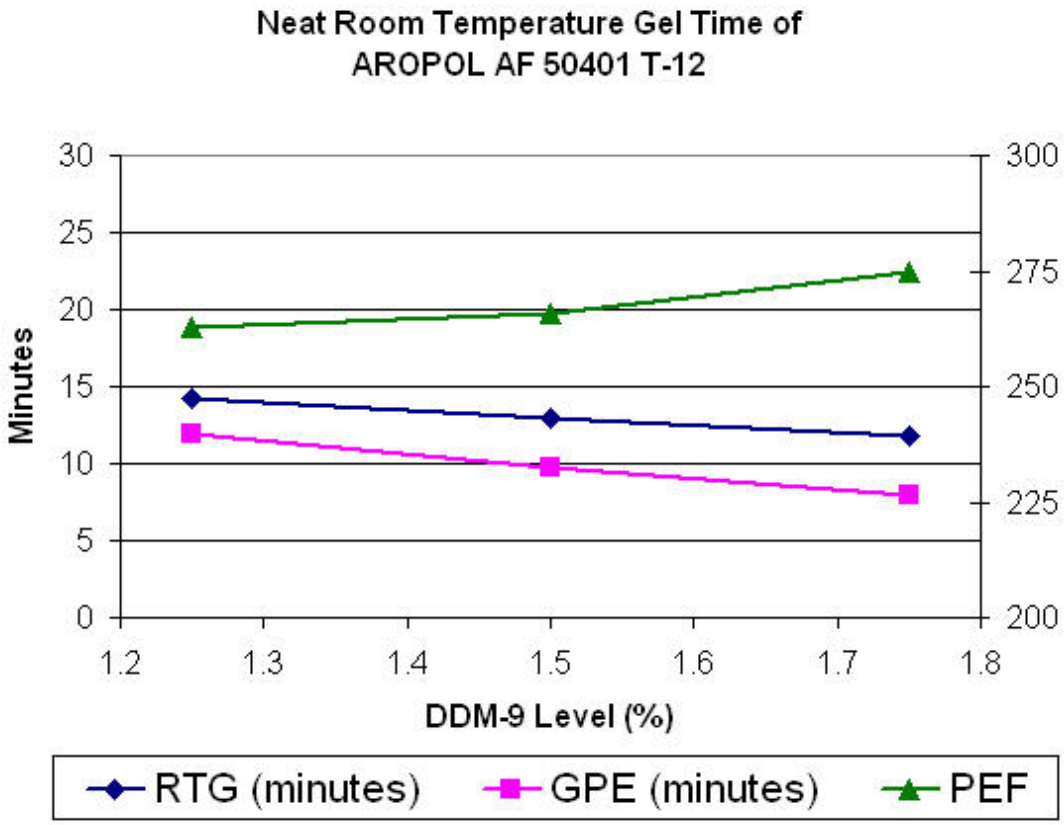
Neat Gel: Initiated with 2.75 g MEKP-900 in 100 g of resin at 77°F.
Filled Gel 1: Filled gel test run using 50% by weight Calcium Sulfate filler at 77°F. Initiated with 1.10 g MEKP-900 in 100 g of filled resin at 77°F.
Filled Gel 2: Filled viscosity run using 62% by weight Omyaset 5-FL filler at 77°F. Initiated with 1.10 g MEKP-900 in 100 g of filled resin at 95°F.

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Neat Gel TIme of AROPOL AF 50401 T-12 Using DDM-9

(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 specifications items.
(2) Registered trademark of Akzo Nobel.

Typical Clear Cast Properties

Property	Value	Unit	Method
Tensile Strength	7,600	psi	ASTM D 638

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Tensile Modulus	350	ksi	ASTM D 638
Elongation at Break	3	%	ASTM D 638
Flexural Strength	12,300	psi	ASTM D 790
Flexural Modulus	340	ksi	ASTM D 790
HDT	49	°C	ASTM D 256

Standard Package

Bulk TW or Steel Drum with Net Weight of 220 Kgs (485 Lbs)

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 sources such as direct sunlight or steam pipes. To avoid contamination of 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: See INEOS Composites Bulk Storage and Handling recommended practices guide.

All other conditions being equal, higher storage temperatures will reduce product 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

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application.

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

More Information

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