Technical Data Sheet

Farapol Jam Chemical Indus. Co.

FARAPOL I 208

Product Description

Farapol I 208 is an Unsaturated Polyester Resin based on Isophthalic Acid and standard Glycols, dissolved in and cross-linked with Styrene Monomer. The product is medium reactive and has a good mechanical performance combining a good elongation at break in tension and high HDT. The resin has a good corrosion resistance, resilience, cracking resistance and impact resistance.

Applications and Use

Farapol I 208 is designed for fabrication using filament winding, hand lay-up, spray-up, BMC, pultrusion, and molded grating manufacturing processes. Construction of GRP tanks and pipes and marine applications is one of the important uses of this resin.

Certificates and Approvals

Farapol I 208 is synthesized from raw materials listed in FDA regulation Title 21 CFR 177.2420. Farapol Jam Chemical Industrial Company carries out this resin's production, quality control, and distribution in compliance with ISO 9001, 14001, 45001, 10002, 10004, 10015, and 17065 standards**.**

Typical Liquid Resin Properties

Property @ 25 ºC	***Unit***	***Specification***	***Method***
Viscosity Brookfield[1]	cps	400 - 450	ISO 2555
Acid Value	mgKOH/g	Max 15	ASTM D 1639
Solid Content	%	61 - 64	ISO 3251
Color	Gardner	Max 2	ASTM D 1544
Specific Gravity	relative	1.11-1.113	ISO 2811
Gel Time[1]	minute	16 - 18	ASTM D 2471
Exothermic Peak Temperature	ºC	140-180	ASTM D 2471

1) Gel Time and Viscosity can be adjusted as per customer requirements.

Gel Time Behavior of Resin[2]

Temperature (ºC)	***18***	***25***	***30***
Gel Time (minute)	29-32	16-18	9-12

2) Mix ratio for measuring Gel Time: (Cobalt Octoate Farapol C 901 1%- 1.0 phr, Akperox A60 1.0 phr).

Typical Casted Resin Properties[3]

Property	*Unit*	*Specification*	*Method*
Tensile Strength	MPa	Min 70	ISO 3268, ASTM D638, ISO 527-2&4
Elongation at Break	%	Min 3.0	ISO 3268, ASTM D638, ISO 527-2&4
Tensile Modulus	GPa	Min 3.0	ISO 3268, ASTM D638, ISO 527-2&4
Flexural Strength	MPa	Min 120	ISO 178/ASTM D 790
Flexural Modulus	GPa	Min 3.4	ISO 178/ASTM D 790
Heat Deflection Temperature (HDT)	^{0}C	Min 80	ISO 75-2 Test Method A
Barcol Hardness	Barcol	Min 40	ASTM D 2583
Water Absorption	%	≈ 0.25	ISO 62- Test Method 3
Linear Shrinkage[4]	%	≈ 1.6	Internal method

3) Materials used for curing are: (Cobalt Octoate Farapol C 901 1%- 1.0 phr, Akperox A60 1.0 phr). Curing Time is 24 hrs. at Room Temperature and 3 hrs. at 80 ºC.
4) This test has been done on the specimen with linear dimensions (1 cm × 1 cm × 100 cm).

Handling, Storage and Stability

FARAPOL I 208 is a product that is sensitive to temperature, light, and oxidation. Hence, it should be stored indoors in a dry place at a temperature between 5 and 25°C. Keep always in the original, unopened, and undamaged containers. Avoid keeping material exposed to sunlight. On storage under the above-mentioned conditions, the shelf life for FARAPOL I 208 is 6 months**.**

Healthy and Safety

Avoid storing the resin along with Metallic Driers and Peroxides in the same area. Safety Datasheets of the product are available on demand. The user is fully responsible for reviewing the material's Safety Data Sheet (SDS) and understanding proper handling procedures prior to using the product.

Packaging

Farapol I 208 is supplied in 200 Kg steel barrels, IBC tanks and bulk road tankers.

Notice

The information contained herein is provided in good faith and is with the best of our accurate knowledge, but we assume no liability for its accuracy or completeness. Therefore, the buyer is advised to determine the suitability of this product for the intended use. We retain the right to make any changes according to technological progress or further developments.
Please note that testing conditions may vary between different laboratories, and a tolerance of up to 5% should be expected in the test report. Farapol Jam Company reserves the right to modify the information in this document at its discretion. The latest version available on the Farapol website is considered valid, and any previous versions are void.

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Contact Information

Tel: +98 21 26231019 Fax: +98 21 26231014

Site: www.farapol.com Email:info@farapol.com