Technical Data Sheet

Farapol Jam Chemical Indus. Co.

FARAPOL O 133-F

Product Description

Farapol O 133 is an Unsaturated Polyester Resin based on Orthophthalic Anhydride and standard Glycols, dissolved in and cross-linked with Styrene Monomer. The product is medium reactive and has a good mechanical performance.

Applications and Use

This resin is flame resistant without additives, so that is a suitable option in composite production processes where flame resistance is required. This resin is designed for the manufacture using hand lay-up, spray-up and mold grating processes. This resin has a good compatibility with Aluminum Trihydroxide ATH.

Certificates and Approvals

Farapol Jam Chemical Industrial Company carries out the production, quality control, and distribution of this resin 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	420 - 480	ISO 2555
Acid Value	mgKOH/g	Max 30	ASTM D 1639
Solid Content	%	64 - 67	ISO 3251
Color	Gardner	Max 2	ASTM D 1544
Specific Gravity	relative	1.20-1.25	ISO 2811
Gel Time[2]	minute	15 - 20	ASTM D 2471

1) Gel Time and viscosity can be adjusted as per customer requirements.
2) Mix ratio for measuring Gel Time: (Cobalt Octoate Farapol C 901 1%- 1.0 phr, Akperox A60 1.0 phr).

Flame Test Result on Clear Cast Mold

Test Method	*Result- Class*	*Standard*
Limited Oxygen Index (LOI)	27.1	ASTM D 2863
Horizontal	Class-0	UL 94/ ASTM D 635
Vertical	V-0	UL 94/ ASTM D 5048

Typical Casted Resin Properties[3]

Property	*Unit*	*Specification*	*Method*
Tensile Strength	MPa	Min 40	ISO 3268, ASTM D638, ISO 527-2&4
Elongation at Break	%	Min 1.0	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 90	ISO 178/ASTM D 790
Flexural Modulus	GPa	Min 3.4	ISO 178/ASTM D 790
Heat Deflection Temperature (HDT)	^{0}C	Min 95	ISO 75/ASTM D 648
Barcol Hardness	Barcol	Min 45	ASTM D 2583
Water Absorption	%	Max 0.20	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 O 133 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 conditions mentioned above, the shelf life for FARAPOL O 133 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 O 133 is supplied in 200 Kg steel barrels and IBC tanks.

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 variations in testing conditions across different laboratories may result in discrepancies, and a tolerance of up to 5% in test results should be expected.
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