

Applications:

- Manufacturing of tanks & vessels.
- Suitable for filament winding process
- Suitable for pultrusion process.

Properties:

- Medium reactivity.
- Good laminating & wetting properties.
- Good corrosion resistance.
- Low water absorption and Outstanding resistance to hydrolysis.
- The code of FARAPOL I 211 according to ISO 3672/1 (1979) or ISIRI 3263 is **UPR 21334x 35**

Composition Of The Resin:

Farapol I 211 is an Unsaturated Polyester Resin based on Isophthalic Acid and standard Glycols, dissolved in and cross linked with Styrene having capability to be used as casting and laminating resin for piping and items to be used in medium level abrasive environment..

Compatibility:

Avoid storing the resin along with Metallic Driers and Peroxides in the same area.

Safety:

Material Safety Datasheets of the product is available on demand.

Product Data¹:

➤ Viscosity Brookfield@25°C	425 ± 25 cps
➤ Acid Value(mgr KOH/gr Resin)	20 ± 2
➤ Color(gardner)	<2
➤ Specific Gravity	1.11-1.13
➤ Solid Content	63± 1 %
➤ Gel Time @25°C	17 ±1 min
➤ Peak Temperature @25°C	160 ± 20 °C

Storage Conditions:

FARAPOL I 211 is a product sensitive to temperature, Light & Oxidation. Hence should be stored indoors in 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.

Stability:

On storage under above mentioned conditions, the stability for FARAPOL I 211 is 6 months.

Supply Modes:

Resin is Supplied in Steel Barrels and Bulk Road Tankers.

Food and Drug:

All resins in this datasheet are manufactured from raw materials that are listed in FDA regulation Title 21 CFR 177.2420.

Note: The laboratory data and results presented herein were obtained through the use of specific methods mentioned and all necessary precautions, high quality lab reagents, and efficient equipment's by FARAPOL JAM CHEMICAL INDUSTRIES. FARAPOL does not guarantee duplication of such results by third parties.

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Gel Time Behavior of Resin at Different Temperature:

@18°C	29-32 ´
@25°C	16-18 ´
@30°C	9-12 ´

Gel time measuring formulation used: (Co 1%- 1.0 phr, Butanox M50 1.0 phr). These tests have been done on 300±25 cps).

Mechanical Properties of Clear Cured Castings:

PROPERTIES²	TEST VALUE	METHOD
Barcol Hardness	>40	ASTM D2583
Tensile Strength (MPa)	>70	ISO 527-2
Elongation at Break	>3	ISO 527-2
Heat Distortion Temperature (°C)	>80	ISO 75-2
Flexural Strength	>120	ISO 178

Materials used for curing are: (Co 1%- 1.0 phr, Butanox M50 1.0 phr). These tests have been done on 300±25 cps. Curing time is 24 Hrs at room Temperature and 3 Hrs at 80°C.

Water Absorption & Linear Shrinkage:

PROPERTIES	TEST VALUE	METHOD
Water Absorption (%)	≈ 0.30	ISO 62- Test Method 3
Linear Shrinkage (%)	≈ 1.3	Internal Method

This test is done on linear sample with dimensions (1 cm × 1 cm × 100 cm). These tests have been done on 300±25 cps.

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