

Applications:

- Manufacturing of tanks, containers & pipes.
- Pultrusion processes where outstanding mechanical properties and excellent resistance to chemicals and heat are required.
- Filled Resin objects.

Properties:

- Medium reactivity.
- Excellent corrosion resistance.
- Good Laminating & wetting properties.
- Good mechanical performance combining a good elongation at break in tension and a suitable HDT.

Composition Of The Resin:

Farapol V 301 is a bisphenol -A epoxy-based vinyl ester resin dissolved in and cross linked with Styrene. It is ideally suited for use in hand lay-up, spray-up, filament winding, SMC, and pultrusion processes where outstanding mechanical properties and excellent resistance to chemicals and heat are required.

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	450±20 cps
➤ Acid Value (mgr KOH/gr Resin)	8-12
➤ Epoxy Value (mgr KOH/gr Resin)	<3
➤ Color(gardner)	<2
➤ Specific Gravity	1.105-1.11
➤ Solid Content	55±1 %
➤ Gel Time @25°C	20 ± 1 min
➤ Peak Temperature @25°C	140-180 °C

Storage Conditions:

FARAPOL V 301 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 sunshine.

Stability:

On storage under above mentioned conditions, the stability for FARAPOL V 301 is 6 months.

Supply Modes:

Resin is Supplied in Steel Barrels and Bulk Road Tankers.

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



Gel Time Behavior of Resin at Different Temperature:

@18°C	27-30'
@25°C	19-21'
@30°C	10-12'

Gel time measuring formulation used: (Co 1%- 1.1 phr, DMA 10% -0.6 phr, BUTANOX M50 1.0 phr). These tests have been done on 300±25 cps).

Mechanical Properties of Clear Cured Castings:

PROPERTIES	TEST VALUE	METHOD
Barcol Hardness	>35	ASTM D2583
Tensile Strength (MPa)	>80	ISO 527-2
Elongation at Break	>4	ISO 527-2
Heat Distortion Temperature (°C)	>100	ISO 75-2
Flexural Strength (MPa)	>120	ISO 178

Materials used for curing are: (Co 1%- 1.1 phr, DMA 10% -0.6 phr, BUTANOX M50 1.0 phr). These tests have been done on 300±25 cps). Curing time: 24 Hrs at room Temperature, 2 Hrs at 80°C, and 1 Hr 120°C.

Water Absorption & Linear Shrinkage:

PROPERTIES	TEST VALUE	METHOD
Water Absorption (%)	≈ 0.30	ISO 62- Test Method 3
Linear Shrinkage (%)	≈ 1.5	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).

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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