

Applications:

- Bulk Molding Compound(BMC)
- Manufacturing of petrol/diesel/gasoline Tanks
- Suitable for Filament winding process
- Suitable for application where **High HDT** needed

Properties:

- High reactivity
- Good Mechanical performance combining a good elongation at break in tension
- Chemical Resistance more than ISO Resins
- High HDT

Composition Of The Resin: Farapol T 509 is an Unsaturated Polyester Resin based Terephthalic Acid and standard Glycols, dissolved in and cross linked with Styrene having capability to be used as casting laminating resin for High performance items.

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(cps@25°C)	400 ± 20
➤ Acid Value (mgrKOH/gr Resin)	15 – 20
➤ Color (gardner)	<2
➤ Specific Gravity	1.11-1.12
➤ Solid Content (%)	60 ± 2
➤ Gel Time(minute@25°C)	16± 2
➤ Peak Temperature(°C, @25°C)	180-200

Storage Conditions: FARAPOL T 509 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 T 509 is 6 months.

Supply Modes:

Resin is Supplied in 200 Kg net. Steel Drums 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.

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



Gel Time Behavior of Resin at Different Temperature:

@18°C	25-27'
@25°C	16-18'
@30°C	13-15'

Gel time measuring formulation used: (Cobalt Octoate Farapol C 901 1%- 1.0 phr, Butanox M50 1.1 phr).

Mechanical Properties of Clear Cured Castings:

PROPERTIES	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)	>115	ISO 75-2
Flexural Strength (MPa)	>115	ISO 178

Materials used for curing are: (Cobalt Octoate Farapol C 901 1%- 1.0 phr, Butanox M50- 1.1 phr). Curing Time is 24 Hrs at Room Temperature and 3 Hrs at 85 °C, for HDT specimens 3 Hrs at 140°C.

Water Absorption & Linear Shrinkage:

PROPERTIES	TEST VALUE	METHOD
Water Absorption (%)	≈ 0.3	ISO 62- Test Method 3
Linear Shrinkage (%)	≈ 1.8	Internal method

This test is done on linear sample with dimensions (1 cm × 1 cm × 100 cm).

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 by FARAPOL JAM CHEMICAL INDUSTRIES. FARAPOL does not guarantee duplication of such results by third parties.

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