

### Applications:

- BMC Process
- SMC Process
- Automotive Industries

### Properties:

- Crack resistance
- High solid content
- Good Chemical Resistance
- Good Mechanical Strength Resistance

**Composition Of The Resin:** Farapol I 213 is an Unsaturated Polyester Resin based on Isophthalic Acid, Neopantyl Glycol and standard Glycols, dissolved in and cross linked with Styrene having capability to be used as SMC and BMC applications.

**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 Data<sup>1</sup>:

➤ Viscosity Brookfield, (cps @25 °C)	1200-1400
➤ Acid Value (mgr KOH/gr Resin)	25-30
➤ Color (gardner)	<2
➤ Specific Gravity	1.11-1.13
➤ Solid Content(%)	64±1
➤ Gel Time(minute, @25°C)*	32-38
➤ Peak Temperature (°C, @25°C)	150-180

\* Gel time was measured with 1.0 phr Cobalt Octoate 1.0% (Farapol C 90) & 1.0 phr MEKP ( Akperox A60)

**Storage Conditions:** FARAPOL I 213 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 213 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.

*1 Gel Time, Acid Value, and Viscosity can be adjusted as per customer requirements.*



**Reactivity Test Results with 1.0 % TBPB (Trigonox C) @ 130 °C**

PROPERTIES	TEST VALUE	METHOD
Gel Time (Time 140°C-Time 80 °C) (s)	120-250	ISO 14848
Curing Time(Time Peak-Time 80 °C)(s)	<300	ISO 14848
Exothermic Peak Temperature (°C)	250-275	ISO 14848

**Mechanical Properties of Clear Cured Castings:**

PROPERTIES	TEST VALUE	METHOD
Tensile Strength (MPa)	>75	ISO 527-2
Elongation at Break	>3	ISO 527-2
Flexural Strength (MPa)	>120	ISO 178
Heat Distortion Temperature (°C)	>92	ISO 75-2
Barcol Hardness	>40	ASTM D2583

*Material 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°C.*

**Water Absorption & Linear Shrinkage:**

PROPERTIES	TEST VALUE	METHOD
Water Absorption (%)	≈ 0.20	ISO 62- Test Method 3
Linear Shrinkage (%)	≈ 1.7	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's by FARAPOL JAM CHEMICAL INDUSTRIES. FARAPOL does not guarantee duplication of such results by third parties.

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