

Technical Data Sheet

Farapol Jam Chemical Indus. Co.

FARAPOL O 134

Product Description Farapol O 134 is an Orthophthalic-based unsaturated polyester resin dissolved in styrene, non-accelerated and non-thixotropic. It has a medium viscosity, medium reactivity, good impregnation of glass fiber, good process abilities, mechanical performance combining a good elongation at break in tension and suitable HDT.

Applications and Use This resin is designed for fabrication using filament winding, hand lay-up, spray-up and molded grating manufacturing processes. Construction of GRP tanks and pipes is one of the important uses of this resin.

Certificates and Approvals Farapol O 134 is synthesized from raw materials listed in FDA regulation Title 21 CFR 177.2420. Farapol Jam Chemical Industrial Company carries out this resin's production, quality control, and distribution in compliance with ISO 9001, 14001, 45001, 10002, 10004, 10015, and 17065 standards.

Typical Liquid Resin Properties

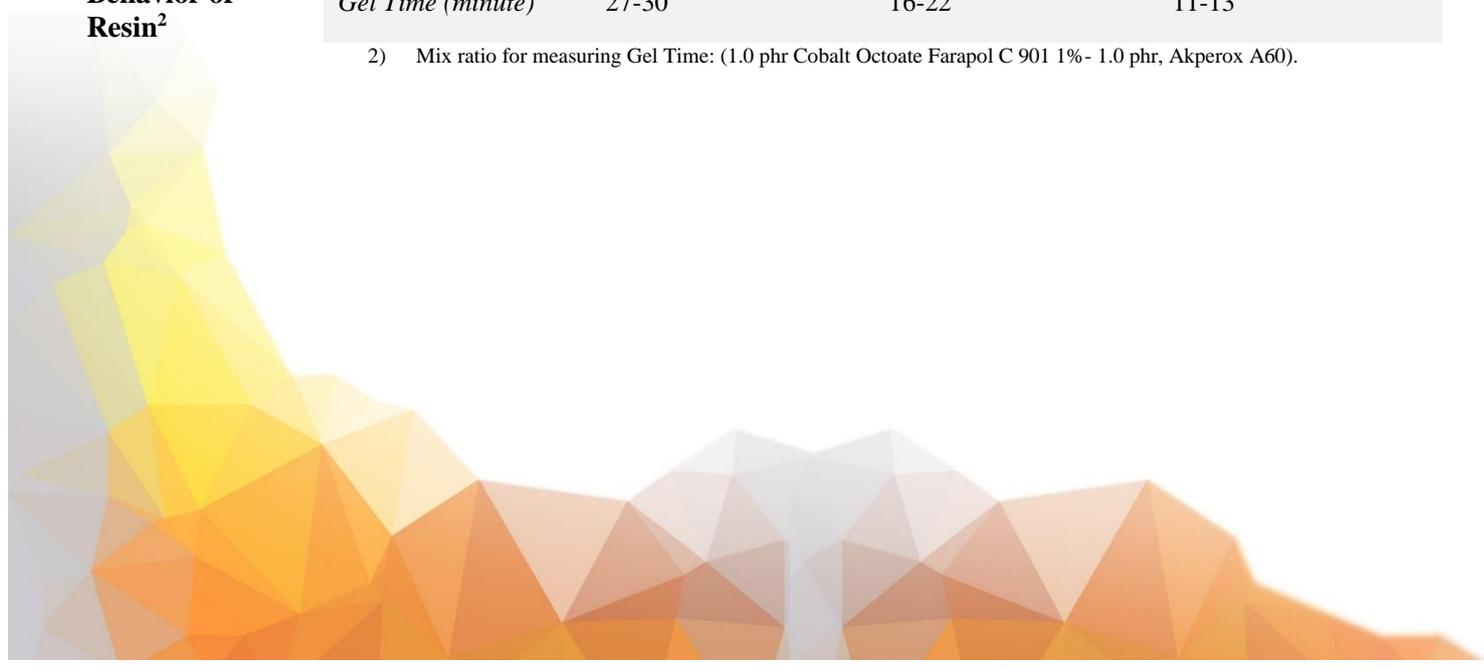
| <i>Property @ 25 °C</i> | <i>Unit</i> | <i>Specification</i> | <i>Method</i> |
|-----------------------------------|-------------|----------------------|---------------|
| Viscosity Brookfield ¹ | cps | 300 - 400 | ISO 2555 |
| Acid Value | mgKOH/g | Max 30 | ASTM D 1639 |
| Solid Content | % | 58 - 62 | ISO 3251 |
| Color | Gardner | Max 2 | ASTM D 1544 |
| Specific Gravity | relative | 1.11-1.13 | ISO 2811 |
| Gel Time ¹ | minute | 16 - 22 | ASTM D 2471 |
| Exothermic Peak Temperature | °C | 150-180 | ASTM D 2471 |

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

Gel Time Behavior of Resin²

| <i>Temperature (°C)</i> | <i>18</i> | <i>25</i> | <i>30</i> |
|--------------------------|-----------|-----------|-----------|
| <i>Gel Time (minute)</i> | 27-30 | 16-22 | 11-13 |

2) Mix ratio for measuring Gel Time: (1.0 phr Cobalt Octoate Farapol C 901 1%- 1.0 phr, Akperox A60).



Typical Casted Resin Properties³

| <i>Property</i> | <i>Unit</i> | <i>Specification</i> | <i>Method</i> |
|-----------------------------------|-------------|----------------------|----------------------------------|
| Tensile Strength | MPa | Min 75 | ISO 3268, ASTM D638, ISO 527-2&4 |
| Elongation at Break | % | Min 4.0 | 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 120 | ISO 178/ASTM D 790 |
| Flexural Modulus | GPa | Min 3.5 | ISO 178/ASTM D 790 |
| Heat Deflection Temperature (HDT) | °C | Min 74 | ISO 75-2 Test Method A |
| Barcol Hardness | Barcol | Min 40 | ASTM D 2583 |
| Water Absorption | % | ≈ 0.30 | ISO 62- Test Method 3 |
| Linear Shrinkage ⁴ | % | ≈ 1.8 | 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 °C.
 4) This test has been done on the specimen with linear dimensions (1 cm × 1 cm × 100 cm).

Handling, Storage and Stability

FARAPOL O 134 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 above-mentioned conditions, the shelf life for FARAPOL O 134 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 134 is supplied in 200 Kg steel barrels, IBC tanks and bulk road tankers.

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.

Farapol Jam Company reserves the right to modify the information in this document at its discretion. The latest version available on the Farapol website is considered valid, and any previous versions are void.

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Contact Information

Tel: +98 21 26231019

Fax: +98 21 26231014

Site: www.farapol.com

Email: info@farapol.com

