



Technical Datasheet

AP2065: Unsaturated Polyester Resin

Unsaturated Polyester Resin AP 2065

AP2065 is an unsaturated polyester resin based on terephthalic acid. This resin is dissolved in styrene.

Typical Liquid Resin Properties(1)

Property	Value
Colour	<2 gardner
Density, 25°C/77°F	1.08 ± 0.04 g/cm ³
Dynamic Viscosity, 25°C/77°F	300-450 cP
Styrene Content	35-40 %
Acid Value	Max 20 mg KOH/g
Shelf Life, Dark, 25°C/77°F	5 months

(1) Typical properties are not to be construed as specifications.

Applications and Fabrication Techniques

- . Recommended for most commercial FRP fabrication processes such as: hand layup, spray-up, pultrusion, filament winding and resin transfer molding, SMC & BMC
- . Suitable for applications where outstanding mechanical properties and excellent
- . To make parts that need chemical and heat resistance
- . For manufacturing pipes and tanks

MEKP Gel Time Table

Use MEKP 9.9 % Active, O (e.g. AKZO M60 or equivalent peroxide system) as catalyst and Cobalt octoat-1%

Resin Temperature	25°C/77°F
Catalyst	1 (phr)(2)
Cobalt octoate 1%	1 (phr)
Gel Time (min.)	10-20 (3)

(2) phr = parts per hundred resin molding compound

(3) Gel time would be adjustable as request

Curing Properties

Reactivity test at 25°C/300cP

25°C - 35°C (a)	12-25
25°C- Exothermic Peak (b)	< 40
b/a	< 1.85
Exothermic Peak °C	160 - 185

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TEST	VALUE	TEST METHOD
Tensile Strength (MPa)	Min. 75.0	ASTM D 638
Tensile Elongation (%)	Min. 3.2	ASTM D 638
Tensile Modulus (GPa)	Min. 3.0	ASTM D 638
Flexural Strength (MPa)	Min. 120.0	ASTM D 790
Flexural Modulus (GPa)	Min. 3.3	ASTM D 790
Heat Distortion Temperature (6) °C	Min. 85.0	ASTM D 648 /ISO 75
Barcol Hardness (7)	Min. 38.0	ASTM D 2583

(4) Typical property values only, not to be construed as specifications.

(5) Cure schedule: 24 hours at room temperature; 3 hours at 85°C (185°F)

(6) Maximum stress: 1.8 MPa.

(7) Test specimen must be prepared by mold.

Handling and Storage Consideration

This resin should be stored indoors in the original, unopened and undamaged packaging, in a dry place at temperatures between 5°C and 30°C. The shelf life of styrene containing unsaturated polyester resins will be significantly reduced when exposed to light and/or higher temperatures.

Safety

This resin contains ingredients which could be harmful if mishandled. Contact with skin and eyes should be avoided and necessary protective equipment and clothing should be worn.