

Product Information

EcoTek Isophthalic Polyester Laminating Resin

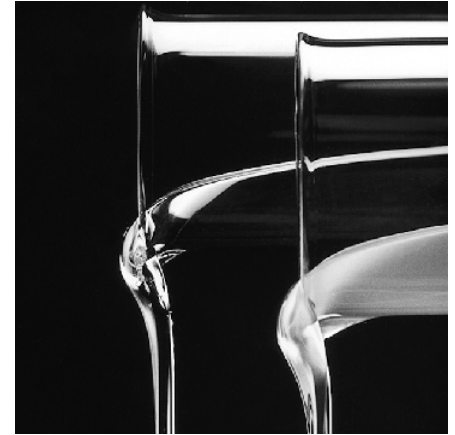
TYPICAL CAST MECHANICAL PROPERTIES * see back page (1)

Test	Units of Measure	Nominal	Test Method
Tensile Strength	psi/MPa	10,300/71.0	ASTM D 638
Tensile Modulus	psi/GPa	530,000/3.7	ASTM D 638
Tensile Elongation	%	2.4	ASTM D 638
Flexural Strength	psi/MPa	18,000/123	ASTM D 790
Flexural Modulus	psi/GPa	570,000/3.9	ASTM D 790
Heat Distortion Temperature	°F/°C @264 psi	226/108	ASTM D 648

*Typical properties are not to be construed as specifications.

TYPICAL LIQUID PROPERTIES 25°C * see back page (2)

Test	Units of Measure	Nominal Value
Viscosity, Brookfield LV #3 @60 rpm	cps	500
Thix Index, 6/60	-	3.0
Styrene Content	%	33
Gel Time, 100g, 1.25% Butanox M-50	minutes	50.0
Cure Time	minutes	12.0
Peak Temperature	°C	185



DESCRIPTION

AOC's EcoTek H704-EKAG-50 is a prepromoted, thixotropic, isophthalic polyester resin.

APPLICATION

AOC's EcoTek H704-EKAG-50 is designed for use in the manufacturing of composite parts using hand lay-up or spray-up application methods.

BENEFITS

■ The combined renewable bio-derived content and/or recycled content of H704-EKAG-50 is 19%.

■ Low Styrene -33%

■ Good Secondary Bonding

AOC's EcoTek H704-EKAG-50 provides good chemical bonding between laminate applications, if proper application procedures are followed.

■ Superior Processing

H704-EKAG-50 was designed with improved wetout/rollout characteristics.

■ Superior Mechanical Properties

When used with the proper glass reinforcement content, AOC's EcoTek H704-EKAG-50 produces a composite with superior mechanical properties that can assist in the reduction of cracking.

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EcoTek™ H704-EKAG-50 Polyester Resin



PERFORMANCE GUIDELINES

A. Keep full strength catalyst levels between 1.25% - 2.0% of the total resin weight.

B. Maintaining shop temperatures between 65°F/ 18°C and 90°F/32°C and humidity between 40% and 90% will help the fabricator make a high quality part. Consistent shop conditions contribute to consistent gel times viscosity.

STORAGE STABILITY

Resins are stable for three months from date of production when stored in the original containers away from sunlight at no more than 21°C. After extended storage, some drift may occur in gel time.

During the hot summer months, no more than two months stability at 86°F/30°C should be anticipated.

SAFETY

See appropriate Material Safety Data Sheet for guidelines.

APPLICATION GUIDELINES

Although EcoTek H704-EKAG-50 provides excellent secondary bonding, exposing the laminate to extreme conditions such as direct sunlight, high temperatures, or dusty conditions for a long time period can reduce secondary bonding. Under these conditions it may be necessary to abrade the laminate to insure the maximum secondary bonding.

To assure adequate bonding to gel coats, fabricators should pre-wet the gel coat surface with a thin pass of catalyzed resin prior to lamination.

ISO 9001:2000 CERTIFIED

The Quality Management Systems at every AOC manufacturing facility have been certified as meeting ISO 9001:2000 standards. This certification recognizes that each AOC facility has an internationally accepted model in place for managing and assuring quality. We follow the practices set forth in this model to add value to the resins we make for use of customers.

FOOTNOTES

(1)

Based on tests at 77°F/25°C and 50% relative humidity. All tests performed on unreinforced cured resin castings. Thixotropic components, if applicable are excluded from casting samples. Castings are post cured.

(2)

The gel times shown are typical but may be affected by catalyst, promoter and inhibitor concentrations and resin, mold and shop temperature. Variations in gelling characteristics can be expected between different lots of catalysts and at extremely high humidities. Pigment and fillers can retard or accelerate gelation. It is recommended that the fabricator check the gelling characteristics of a small quantity of resin under actual operating conditions prior to use.

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The information contained in this data sheet is based on laboratory data and field experience. We believe this information to be reliable, but do not guarantee its applicability to the user's process or assume any liability for occurrences arising out of its use. The user, by accepting the products described herein, agrees to be responsible for thoroughly testing each such product before committing to production.

Our recommendations should not be taken as inducements to infringe any patent or violate any law, safety code or insurance regulation.