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Product Information

Hydropel™ Modified Vinyl Ester Resin



TYPICAL CAST MECHANICAL PROPERTIES * see back page (1)

Test	Units of Measure	Nominal	ISO Methods
Tensile Strength	MPa	80	ISO 527-1
Tensile Modulus	GPa	4	ISO 527-1
Tensile Elongation	%	2.7	ISO 527-1
Flexural Strength	MPa	103	ISO 178
Flexural Modulus	GPa	4.1	ISO 178
Heat Distortion Temperature	°C	107	ISO 75-A

*Typical properties are not to be construed as specifications.

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

Test	Units of Measure	Nominal
Viscosity Brookfield, LV #3@60	cps	575
Thix Index, 6/60		3.0
Styrene Content	%	34
Gel time, 100g 1.25% Butanox M-50	minutes	30
Cure time	minutes	14
Peak Exotherm	°C	158

DESCRIPTION

Hydropel™ H034-ADB-30 is a thixotropic, pre-promoted, modified vinyl ester resin.

APPLICATION

Hydropel™ H034-ADB-30 is designed for use in the manufacturing of boats, tooling or other composite parts using hand lay-up or spray-up application methods. For boat fabrication, Hydropel™ H034-A can be used either in a skincoat or for the complete laminate to obtain the maximum benefits.

BENEFITS

- Maximum resistance to osmotic blistering when used for the skin coat of the complete composite
- Excellent strength and toughness of the finished composite part
- Provides improved resistance to cracking caused by the flexural failure of the laminate even when used only for the skin coat
- Good surface profile, with reduced post cure on finished parts
- Provides the toughness and resistance to heat needed to make durable tooling that will require minimal maintenance
- Contains Blue Catalyst Indicator
- **Lloyds Of London approved**

Hydropel™

H034-ADB-30 (050/H034VIRTA)

Modified Vinyl Ester Resin

PERFORMANCE GUIDELINES

A. Keep full strength catalyst levels between 1.0% - 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 and viscosity.

STORAGE STABILITY

Resins are stable for six 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.

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.

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.



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