

## Product Information

# Hydropel® Vinyl Ester Resin for Infusion

### TYPICAL LIQUID RESIN PROPERTIES\*

	Nominal
Viscosity @77°F/25°C, RV Brookfield	
Spindle #2 @20 rpm, cps.	85
Styrene %,	38

### TYPICAL CURING PROPERTIES \* (1) see back page

100 Gram Mass	
Promoter, 0.150% Cobalt 12%	
Catalyst, 1.50% Trigonox 239a (CHP)	
Gel Time @ 77°F/25°C, minutes	11
Gel to peak, minutes	8
Peak Exotherm, °F/°C	395/202

### TYPICAL CAST MECHANICAL PROPERTIES\* (2) see back page

		Test Method
Tensile Strength, psi/MPa	13,700/94	ASTM D 638
Tensile Modulus, psi/GPa	530,000/3.7	ASTM D 638
Elongation	4.5	
Flexural Strength, psi/MPa	21,800/150	ASTM D 790
Flexural Modulus, psi/GPa	550,000/3.8	ASTM D 790
Heat Distortion Temperature, °F/°C @264 psi	242/117	ASTMD 648

\*Typical properties are not to be construed as specifications.



### DESCRIPTION

Hydropel® R015-AAG-00 is a non-thixed and un-promoted vinyl ester resin system. It was designed to be used with Cobalt 12% promoter and CHP catalyst that can result in low exotherms along with good final cure of infused laminates. The user can achieve longer working Gel Times as needed with the addition of inhibitors.

### APPLICATION

Hydropel® R015-AAG-00 is suited for manufacturing boats and marine craft along with other composite applications needing superior properties that utilize the Vacuum Infusion process.

### BENEFITS

- Low viscosity allowing for fast and controlled infusing times.
- Excellent strength of the resultant laminate/composite.
- Formulated to provide low laminate exotherms resulting in improved cosmetic surface.
- Excellent strength and toughness of the resultant composite.

# Hydropel®

## R015-AAG-00

### 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.

#### 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 70°F/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.

After extended storage, some drift may occur in gel time.

Storage in plastic totes made out of materials such as polyethylene (PE) or polypropylene (PP), will accelerate gel formation and result in significantly reduced storage stability.

Storage of this resin outdoors in translucent plastic totes may reduce the storage stability to only a few weeks. AOC cannot assume responsibility for gel formation under these storage conditions.

#### 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 our customers.

#### FOOTNOTES

##### (1)

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.

##### (2)

Based on tests run 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 for 5 hours at 212°F/100°C using AOC test method X-12Ab.

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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