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RESINS | GEL COATS | COLORANTS

ALTEK® H834-R SERIES POLYESTER RESIN

Product Information

LOW PROFILE LAMINATING RESIN

Typical Cast Mechanical Properties [1]			
Test	**Unit of Measure**	**Nominal**	**Test Method**
Tensile Strength	psi/MPa	9,000/62	ASTM D 638
Tensile Modulus	psi/GPa	570,000/3.9	ASTM D 638
Tensile Elongation	%	2.0	ASTM D 638
Flexural Strength	psi/MPa	14,000/97	ASTM D 790
Flexural Modulus	psi/GPa	590,000/4.1	ASTM D 790
Heat Distortion Temperature	°F/°C @264 psi	203/95	ASTM D 648

Typical Liquid Properties[2]									
VERSIONS	Visc	rpm	cps	TI	Styrene, %	MEKP	%	GT	Peak Exotherm, °F / °C
H834-RAA-25	LV#3	60	620	3.8	35	M-50	1.25	26	302/150
H834-RAA-30	LV#3	60	570	3.8	35	DDM-9	1.25	30	302/150
H834-RAA-35	LV#3	60	570	3.8	35	DDM-9	1.25	36	302/150
H834-RAA-45	LV#3	60	570	3.8	35	DDM-9	1.25	46	293/145
H834-RCJ-18	LV#3	60	550	3.2	35	DDM-9	1.25	18	345/174
H834-RCT-40	LV#3	60	400	3	35	MEKP-9	1.75	40	335/168
H834-RDE-23	LV#3	60	650	2.3+	35	MEKP-9H	1.38	23	330/166
H834-RAK-40	LV#3	60	575	3.0	35	DDM-9	1.25	40	270/132
H834-RAK-46	LV#3	60	575	3.0	35	DDM-9	1.25	46	270/132
H834-RAK-55	LV#3	60	575	3.0	35	DDM-9	1.25	55	270/132
H834-RKB-55	LV#3	60	500	3.4	35	DDM-9	1.5	55	270/132
H834-RAB-45	LV#3	60	650	3.7	35	DDM-9	1.25	45	284/140

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

DESCRIPTION

Altek H834-R Series is a medium reactive, thixotropic, pre-promoted resin.

APPLICATION

The Altek H834-R Series was designed for use in the manufacturing of boats and other composite parts using hand lay-up or spray-up application methods.

BENEFITS

- Fast laminate cure rate allows for faster production rates without loss of surface profile
- Reduced post cure
- Fast and complete fiber wet-out
- Good resistance to osmotic blistering (for improved blister resistance, a skin coat made with Hydropel H034-A can be used)
- Will provide good physical properties in finished part
- Adaptable to a variety of manufacturing processes and conditions
- Meets requirements for low styrene resins in the marine industry

ALTEK®

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PERFORMANCE GUIDELINES

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

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

C. Sanding and/or grinding is recommended if a secondary bond is applied to a laminate that was made with a resin containing wax.

STORAGE STABILITY

This product is stable for three months from the date of manufacture when stored in the original containers, away from direct sunlight or other UVA light sources and at or below 77°F/25°C.

Storage stability of two months or less should be anticipated if the storage temperature exceeds 86°F/30°C.

After extended storage, some drift may occur in the product viscosity and gel time.

APPLICATION GUIDELINES

Due to the excellent curing characteristics of Altek H834-R Series resin, complete all secondary bonding as soon as possible. Exposing the laminate to sunlight will result in severe secondary bonding problems. After 24 hours of cure, it may be necessary to abrade the laminate to insure good secondary bonding, especially if the surface of the laminate is resin rich. Avoid low fiberglass content and resin puddling with this product.

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.

Chemical resistance studies indicate that resins like H834-R Series have every poor resistance to certain hydrophobic liquids such as hydrocarbons. Fuel storage tanks should not be produced with H834-R Series resins.

If your manufacturing needs require a more corrosion resistant resin, please contact your AOC representative for information or technical assistance on AOC's line of isophthalic or vinyl ester resins.

SAFETY

See the appropriate Safety Data

ISO 9001:2008 CERTIFIED

The Quality Management Systems at every AOC manufacturing facility have been certified as meeting ISO 9001:2008 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.) 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.

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(2.) The gel times shown are typical but may be affected by catalyst, promoter, inhibitor concentration, resin, mold, and shop temperature. Variations in gelling characteristics can be expected between different lots of catalysts and at extremely high humidities. Pigment and/or filler 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.

AOC

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