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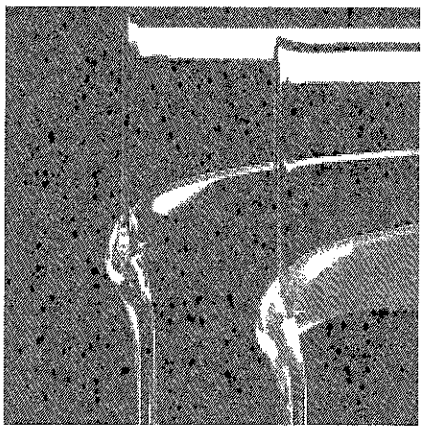
AOC®
World Leader in Resin Technology

Altek® H834-R Series Polyester Resin

Product Information

Altek Low Volatiles Low Profile Laminating Resin



TYPICAL CAST MECHANICAL PROPERTIES* (2) See back page

	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 properties are not to be construed as specifications.

TYPICAL LIQUID RESIN PROPERTIES* (1) See back page

VERSIONS	MEKP	%	GT	Peak Exotherm °F/°C	Visc Type	rpm	Viscosity	TI	% Styrene
H834-RAA-25	M-50	1.25	26	280/138	LV	60	620	3.8	⇔35
H834-RAA-30	DDM-9	1.25	30	280/138	LV	60	570	3.8	⇔35
H834-RAA-35	DDM-9	1.25	36	280/138	LV	60	570	3.8	⇔35
H834-RAA-45	DDM-9	1.25	46	280/138	LV	60	570	3.8	⇔35
H834-RAJ-20	DDM-9	1.25	22	280/138	LV	60	570	3.8	⇔35
H834-RAJ-25	DDM-9	1.25	26	280/138	LV	60	570	3.8	⇔35
H834-RAJ-35	DDM-9	1.25	26	280/138	LV	60	570	3.8	⇔35
H834-RBG-25	DHD-9	1.25	25	350/177	LV	60	525	2.3+	⇔35
H834-RBG-30	DHD-9	1.25	30	345/174	LV	60	525	2.3+	⇔35
H834-RCJ-18	DDM-9	1.25	18	345/174	LV	60	550	3.2	⇔35
H834-RCT-40	MEKP-9	1.75	40	335/168	LV	60	400	3.0	⇔35
H834-RCX-17	HP-90	1.25	17	320/160	LV	60	450	3.0	⇔35
H834-RCX-20	HP-90	1.25	17	320/160	LV	60	450	3.0	⇔35
H834-RCZ-15	DDM-9	1.25	15	330/166	LV	60	500	3.0	⇔35
H834-RCZ-22	DDM-9	1.25	22	330/166	LV	60	500	3.0	⇔35
H834-RCZ-25	DDM-9	1.25	25	330/166	LV	60	500	3.0	⇔35
H834-RDB-27	MEKP-9H	1.38	27	332/167	LV	60	550	2.3+	⇔35
H834-RDB-32	MEKP-9H	1.38	32	330/166	LV	60	525	2.3+	⇔35
H834-RDE-23	MEKP-9H	1.38	23	330/166	LV	60	650	2.3+	⇔35
H834-RDH-24	DDM-9	1.25	24	255/124	RV	50	585	2.5+	⇔35
H834-RLA-15	DDM-9	1.25	15	325/163	RV	50	450	2.7	⇔35
H834-RLC-20	DDM-9	1.25	20	320/160	LV	60	500	2.2+	⇔35
H834-RLT-20	DDM-9	1.25	20	330/166	LV	60	540	3.2	⇔35
H834-RWA-30	DDM-9	1.25	30	330/166	LV	60	500	2.3+	⇔35
H834-RWL-20	DDM-9	1.25	20	350/177	LV	60	450	2.3+	⇔35
H834-RWL-25	DDM-9	1.25	25	331/166	LV	60	450	2.3+	⇔35

DESCRIPTION

Altek H834-R is a medium reactive, thixotropic, pre-promoted, low profile, low styrene resin.

APPLICATION

Altek H834-R resin is designed for use in the manufacturing of boats and other composite parts using hand lay-up or spray-up applications 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, H100-W or H100-M can be used).
- Will provide good physical properties in finished part
- Adaptable to a variety of manufacturing processes and conditions
- Meets MACT requirements for low HAP resins in the marine industry
- Some versions comply with California's AQMD Rule 1162

Altek® H834-R Series Polyester Resin

PERFORMANCE GUIDELINES

A. Keep full strength catalyst levels between 1.0% - 2.0% (1.25% minimum with mechanical application) 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

This product is stable for three months from the date of manufacture when stored in the original containers, away from direct sunlight or other UV light sources and at or below 25°C (77°F). Storage stability of two months or less should be anticipated if the storage temperature exceeds 30°C (86°F).

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

SAFETY

See appropriate Material Safety Data Sheet for guidelines.

APPLICATION GUIDELINES

Due to the excellent curing characteristics of Altek H834-R 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 Altek H834-R have very poor resistance to certain hydrophobic liquids, such as hydrocarbons. Fuel storage tanks should not be produced with the Altek H834-R.

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.

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.

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