



Your Formula for Success
RESINS | GEL COATS | COLORANTS

ALTEK® R432-APE-10 POLYESTER RESIN



Product Information

GENERAL PURPOSE POLYESTER RESIN FOR LIQUID MOLDING PROCESS APPLICATIONS

Typical Cast Mechanical Properties ¹

Test	Unit of Measure	Nominal	Test Method
Tensile Strength	MPa	79	ISO 527-1
Tensile Modulus	GPa	4.1	ISO 527-1
Tensile Elongation	%	2.5	ISO 527-1
Flexural Strength	MPa	10.5	ISO 178
Flexural Modulus	GPa	4.2	ISO 178
Heat Distortion Temp.	°C	74	ISO 75-A

DESCRIPTION

R432-APE-10 is a promoted, none thixotropic general purpose resin.

APPLICATION

R432-APE-10 is custom formulated for use in Liquid Molding Process Applications for the construction of various composite parts (except marine parts). The product exhibits low exotherm and very good flow for fast fill mold.

BENEFITS

- Quick gel time allowing for fast production.
- Rapid wet out of glass with the correct RTM parameters.
- Low exotherm

Typical Liquid Properties²

Test	Unit of Measure	Nominal
Viscosity Brookfield, LVT #2 @ 60 rpm	Cps	175
Styrene Content	%	40
Gel Time, 100g, 1.25% Butanox M-50	minutes	10
Peak Exotherm	°C	130

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

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PERFORMANCE GUIDELINES

A. Keep full strength catalyst levels between 1.0% - 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%. Consistent shop conditions contribute to consistent gel time and will help the fabricator make a high quality part.

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 UV 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.

SAFETY

See the appropriate Safety Data Sheet for guidelines.

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 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 were post cured.

(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.



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