

## Altek™ Low Shrink RTM Resin

### TYPICAL CAST MECHANICAL PROPERTIES \*see back page (1)

Test	Units of Measure	Nominal	ISO Methods
Tensile Strength	MPa	60	ISO 527-1
Tensile Modulus	GPa	3.9	ISO 527-1
Tensile Elongation	%	1.8	ISO 527-1
Flexural Strength	MPa	108	ISO 178
Flexural Modulus	GPa	4.0	ISO 178
Heat Distortion Temperature	°C	89	ISO 75-A

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

	Units of Measure	Nominal
Viscosity, Brookfield, LVT#2@60	cps	165
Styrene Content	%	34



#### DESCRIPTION

AOC's Altek R830-CEA-21 is a pre-promoted, non-thixotropic, low shrink polyester resin system, specifically designed for RTM, RTM Light or Vacuum Infusion.

#### FEATURES

- Low Viscosity for fast fill times
- Low shrinkage for improved surface cosmetics
- Fast hardness development for quick de-mold times
- Low peak exotherm

VERSION	CATALYST TYPE/LEVEL	GEL TIME, MINUTES	GEL TO PEAK MINUTES	PEAK TEMPERATURE °C
R830-CEA-21	1.5% PD40	21	9	165

# Altek™ R830-CEA-21 Polyester 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 21°C. After extended storage, some drift may occur in gel time.

During the hot summer months, no more than two months stability at 30°C should be anticipated.

## SAFETY

See appropriate Material Safety Data Sheet for guidelines.

## APPLICATION GUIDELINES

AOC's Altek R830-CEA-21 was formulated to be used with inorganic fillers. Typically, one would use Calcium Carbonate in the 10 to 15% range. However, particle size and other factors would contribute to the actual amount one would be able to incorporate into a "filled" RTM system. It is necessary for each user to determine the type and amount of "fillers" that would be compatible with their operation.

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 9001:2008 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 prepared using 1.25% M-50, 0.25% Cobalt 6% and 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.



## Global Contacts

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