

Product Information

EcoTek Recycled Polyethylene Terephthalate Resin for Polymer Concrete

TYPICAL LIQUID RESIN PROPERTIES* (1) see back page

	Nominal
Viscosity @ 77°F/25°C, RVF Brookfield Spindle #3 @ 10 RPM, cps.	400
Specific Gravity @ 77°F/25°C	1.12
Color	Yellow Clear
Styrene, %	40

TYPICAL CURING PROPERTIES* (1) see back page

100 Gram Mass	
Catalyst, 1.5% Cadox M-50 & 0.6% Hot Shot 21	
Gel time @ 77°F/25°C, minutes	8.0*
Gel to peak, minutes	13
Peak Exotherm, °F/°C	415/213

*Available pre-promoted @ various gel times

TYPICAL CAST MECHANICAL PROPERTIES* (2) see back page

		Test Method
Tensile Strength, psi/MPa	10,000/69	ASTM D638
Tensile Elongation, %	2.3	ASTM D638
Flexural Strength, psi/MPa	18,000/124	ASTM D790
Flexural Modulus, psi/GPa	560,000/3.8	ASTM D790
Heat Distortion Temperature, °F/°C @ 264 psi	248/120	ASTM D790

*Typical properties are not to be construed as specifications.



DESCRIPTION

AOC's EcoTek A460-PCEG-00 is a promoted, reactive, rigid, Polyethylene Terephthalate polyester resin with excellent mechanical properties. AOC's A460-PCEG-00 may be used in producing polymer concrete pipe and other similar filled castings where a higher chemical resistance than the typical general purpose resin is needed.

BENEFITS

- The combined renewable bio-derived content and/or recycled content of EcoTek A460-PCEG-00 is 35%.
- Moderate Corrosion Resistance
- High Heat Distortion

APPLICATIONS

- Polymer concrete
- Filled castings
- Anchor bolt casings
- Non-potable "gray" water pipe



EcoTek®

A460-PCEG-00

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 six 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.

SAFETY

See appropriate Material 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)

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 of A460-PCE-00 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.



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