AOC
World Leader in Resin Technology

Vicast® A597-YLC-30 Polyester Resin

Product Information

Vicast® Hybrid Polyester Resin for Casting Applications Using "Lightweight" Fillers

TYPICAL LIQUID RESIN PROPERTIES*

	Nominal
Viscosity @ 77°F/25°C, RV Spindle #2@ 20 RPM, cps.	600
Colour	Violet
Styrene Content, %	31.5
Specific Gravity	1.14

TYPICAL CURING PROPERTIES (1) see back page

Gel time @ 77°F/25°C, minutes,	10, 20, 30 or 40
Gel to peak, minutes	12
Peak Exotherm, °F/°C	300/150
Cured Color	Amber

Gel time @ 77°F/25°C with 1.0% M-50.

*Typical properties are not to be construed as specifications.

TYPICAL CASTING PROPERTIES* (2) see back page

		Test Method
Tensile Strength, psi/MPa	12,600/87	ASTM D 638
Tensile Modulus, psi/GPa	630,000/4.3	ASTM D 638
Tensile Elongation, %	3.2	ASTM D 638
Flexural Strength, psi/MPa	21,400/148	ASTM D 790
Flexural Modulus, psi/GPa	630,000/4.0	ASTM D 790
Heat Distortion Temperature, °F/°C @ 264 psi	144/62	ASTM D 648
Barcol Hardness	40	ASTM D 2583

*Typical properties are not to be construed as specifications.

DESCRIPTION

Vicast® A597-YLC-30 is a low viscosity, pre-promoted casting resin designed to minimize resin demand in the production of synthetic marble parts.

Vicast® A597-YLC-30 is engineered to optimize flow, green strength and thermocycling when used with calcium carbonate lightweight filler blends designed for cultured marble parts.

FEATURES

- Extended gel time for heated systems or maximum working time.
- Low viscosity for minimal resin demand.
- Reduced monomer at standard viscosity to control shrinkage.
- Short cure times at moderate exotherms.

BENEFITS

- Superior wet-out and air release that allow the highest possible filler loadings.
- Allows manufacturers to make lightweight parts at the same resin demand of traditional marble mixes
- Hybrid resin/lightweight filler composites can yeild superior thermocycling results over traditional marble mixes

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PERFORMANCE GUIDELINES

A. Keep full strength catalyst levels at 1.0% - 2.0% of the total resin weight.

B. Maintaining shop temperatures between 70°F and 90°F and humidity between 40% and 90% will help the fabricator make a high quality part. Consistent shop conditions contribute to consistent gel times.

C. Catalyst levels should be kept at the top end of the recommended range when shop temperatures are at the lower end of the recommended range.

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.

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 by the temperature of the resin, mold and shop conditions. 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.

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