

Product Information

Vicast® Orthophthalic Resin for Casting Applications



TYPICAL LIQUID RESIN PROPERTIES*

	Nominal
Viscosity @ 77°F/25°C, RVF Brookfield Spindle #3 @ 10 RPM, cps.	1,250
Thix ratio	N/A
Specific Gravity @ 77°F/25°C	1.13
Color	Purple
Styrene, %	29

TYPICAL CURING PROPERTIES* (1) see back page

100 Gram Mass Catalyst, 1.00% Cadox M-50	
Gel time @ 77°F/25°C, minutes	12
Gel to peak, minutes	10
Peak Exotherm, °F/°C	290/143

TYPICAL CAST MECHANICAL PROPERTIES* (2) see back page

		Test Method
Tensile Strength, psi/MPa	10,100/70	ASTMD 638
Tensile Modulus, psi/GPa	540,000/3.7	ASTMD 638
Tensile Elongation, %	3.15	ASTMD 638
Flexural Strength, psi/MPa	18,140/125	ASTMD 790
Flexural Modulus, psi/GPa	500,000/3.4	ASTMD 790
Heat Distortion Temperature, °F/°C @ 264 psi	118/48	ASTMD 648
Barcol Hardness	38	ASTMD 2583

*Typical properties are not to be construed as specifications.

DESCRIPTION

AOC's Vicast® A523-MKA-15 is a pre-promoted, flexural modified, non-thixotropic, polyester resin formulation designed for general filled casting applications. AOC's A523-MKA-15 may be used as a binder resin in conjunction with a variety of crushed stones in the production of vanity tops and wall panels.

FEATURES

- Fast cure rates
- Medium viscosity
- Good color stability

APPLICATIONS

- Casting
- Potting

Vicast® A523-MKA-15 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 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 9001:2000 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 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% DDM-9, and post cured for 2 hours at 194°F/90°C using Alpha/Owens Corning test method X-12Ab.



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The information contained in this data sheet is based on laboratory data and field experience. We believe this information to be reliable, but do not guarantee its applicability to the user's process or assume any liability for occurrences arising out of its use. The user, by accepting the products described herein, agrees to be responsible for thoroughly testing each such product before committing to production.

Our recommendations should not be taken as inducements to infringe any patent or violate any law, safety code or insurance regulation.