

## Product Information

# EcoTek Orthophthalic Resin for Casting Applications

### TYPICAL LIQUID RESIN PROPERTIES\*

|                                       | Nominal |
|---------------------------------------|---------|
| Viscosity @ 77°F/25°C, RVF Brookfield |         |
| Spindle #3 @ 10 RPM, cps.             | 1,250   |
| Specific Gravity @ 77°F/25°C          | 1.13    |
| Color                                 | Rose    |
| 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 or 25 |
| 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   | ASTM D 638  |
| Tensile Modulus, psi/GPa                        | 540,000/3.7 | ASTM D 638  |
| Tensile Elongation, %                           | 3.15        | ASTM D 638  |
| Flexural Strength, psi/MPa                      | 18,140/125  | ASTM D 790  |
| Flexural Modulus, psi/GPa                       | 500,000/3.4 | ASTM D 790  |
| Heat Distortion Temperature,<br>°F/°C @ 264 psi | 118/48      | ASTM D 648  |
| Barcol Hardness                                 | 38          | ASTM D 2583 |

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



### DESCRIPTION

EcoTek A523-MKAG-15 is a pre-promoted marble resin designed for maximum versatility in the production of synthetic marble parts including vanities and tubs. EcoTek A523-MKAG-15 is designed to allow extreme flexibility in selecting the combination of gel time and fillers that suits the specific manufacturing process, working conditions and raw materials.

### BENEFITS

- The combined renewable bio-derived content and/or recycled content of EcoTek A523-MKAG-15 is 25%
- Consistent, accurate coloring of cured marble matrix
- Controlled shrink and moderate exotherm for making tops and tubs
- Proper reactivity, shrink and strength to use with highly filled or exotherm suppressed systems

### FEATURES

- Flex modified to improve impact strength
- Medium viscosity for maximum versatility
- Short cure times at moderate exotherms



# EcoTek® A523-MKAG-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 9001:2008 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 at 77°F/25°C and 50% relative humidity. All tests performed on unreinforced cured resin castings. Thixo-tropic components, if applicable, are excluded from casting samples. Castings were post cured.



955 Highway 57 East  
Collierville, TN 38017  
Toll Free: (866) 319-8827  
[www.aoc-resins.com](http://www.aoc-resins.com)

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