AOC
World Leader in Resin Technology

Ecolam XR-3102-I Polyester Resin

Ecolam Filled Polyester Resin

TYPICAL CAST MECHANICAL PROPERTIES* (1) see back page

Test	Units of Measure	Nominal	ISO Methods
Tensile Strength	MPa	74	ISO 527-1
Tensile Modulus	GPa	3.8	ISO 527-1
Tensile Elongation	%	2.3	ISO 527-1
Flexural Strength	MPa	111	ISO 178
Flexural Modulus	GPa	4.1	ISO 178
Heat Distortion Temperature	℃	83	ISO 75-A

*Typical properties are not to be construed as specifications.

TYPICAL FILLED RESIN PROPERTIESAT 25℃ * (2) see back page

VERSION	Viscosity, cps	Thix Index	Gel Time, min	Total Cure Time	Peak Exotherm,°C	Catalyst Type/Level
XR-3102	700	3.5	20	35	135	1.25% KP-9

1) LV viscometer, spindle #3

DESCRIPTION

Ecolam XR-3102-I is a prefilled fully promoted thixotropic polyester resin.

APPLICATIONS

Ecolam XR-3102-I is designed for fabrication of composite parts in hand lay-up or spray-up and/or casting applications.

BENEFITS

- **Cure Profile**
  Designed for good even cure with moderate exotherm
- **Wetout/Rollout**
  Designed for ease of processability
- **XR-3102-I**
  Chemically engineered to prevent filler packing
- Contains internal mold release

Ecolam XR-3102-I 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

Storage in plastic totes made out of materials such as polypropylene (PP) or polyethylene(PE), in particular translucent PP/PE, will accelerate gel formation and result in significant reduced storage stability.

Storage of this resin outdoors in translucent plastic totes may reduce the storage stability to only a few weeks. AOC cannot assume responsibility for gel formation under these storage conditions.

Filled resins must be agitated before use.

SAFETY

See appropriate Material Safety Data Sheet for guidelines.

APPLICATION GUIDELINES

Due to the curing characteristics of the Ecolam XR-3102-I, it is desirable to complete all secondary bonding as soon as possible. Exposure of the laminate to sunlight will result in severe secondary bonding problems. After 24 hours of cure, it may become necessary to abrade the laminate to insure good secondary bonding, especially if the surface of the laminate have been allowed to become resin rich. Low fiberglass content and resin puddling should be avoided with this product.

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 of the un-promoted base resin, at a 60% solids content, used in the manufacture of Ecolam XR-3102 at 77°F/25°C. All tests performed on un-reinforced cured resin castings. Thixotropic components, if applicable, are excluded from casting samples. Castings were 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.

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