Orca 502 V/E Class 1 Fire Retardant Resin

Orca Composites

502

Description:

Orca 502 is a brominated bisphenol A epoxy vinyl ester resin dissolved in styrene. Orca 502 resin is designed for fabrication of small to large FRP parts at an ambient temperature. Orca 502 is available un-promoted or pre-promoted for curing at room temperature with the addition of methyl ethyl ketone peroxide (MEKP) initiator. Orca 502 meets ASTM E 84 Class 1 flame spread and smoke requirements. It is designed to be used with both the spray-up and hand laid application technique.

Features:

- Meets ASTM E 84 Class 1 Flame Spread and Smoke.
- Extremely fast wet out and Roll out
- Good Mechanical Strength
- Thixotropic
- High Elongation
- High Impact Strength
- Corrosive resistance
- Superior Adhesion Property

Uses:

- Yacht/Boat Construction/Blister Repair
- Manufactured parts
- Spray up process
- Hand Lay-up application
- Amusement Park Rides
- Coast Guard applications

TYPICAL PROPERTIES *[1]

Uncured Resin

Test	Value
Viscosity, 77° F	500cps
Specific Gravity, 77° F	1.05
Curing Property, 77° F	1% MEKP 9% active
Gel Time, 77˚ F	Variable
Time to Peak	Variable
Peak Exothermic Temp.	266-304˚ F

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* 1. Values are representative.
Specification limits are available upon request.

Cured Resin *[2]

Test	Value
Tensile Strength	12,000psi
Flexural Strength	20,700 psi
Flexural Modulus	530,000 psi
Elongation (%)	2.9%
Barcol Hardness, 934-1	54
Heat Distortion Temp.	237˚ F

Handling & Storage

As with all polyester resin, rate and degree of cure are a function of initiator concentration and of temperature. Resin and work area should be between 70°F and 95°F to ensure satisfactory results. Initiator levels should be within a range of 1.0-2.2% based on weight of resin. The use of initiator levels outside of this range may result in an inadequate cure, with laminates exhibiting moderate to severe post cure after demolding.

Orca 502 is available in 55-Gallon metal drums.

To ensure maximum stability and maintain optimum resin properties, resins should be stored in closed containers at temperatures below 75°F and away from heat sources and sunlight. All storage areas and containers should conform to local fire and building codes. Drum stock should be stored away from all sources of flame or combustion. Inventory levels should be kept to a reasonable min with first-in, first-out stock rotation.

Safety

Read and understand the Material Safety Data Sheet before working with this product