



511

Description:

Orca 511 epoxy bisphenol-A vinyl ester resin is designed for great corrosion resistance to a wide range of acids, alkalis, bleaches and organic compounds.

Features:

- Low Viscosity
- Good Mechanical Strength
- High Elongation
- High Impact Strength
- Corrosive resistance
- Superior Adhesion Property
- Blister resistance

Uses:

- Yacht/Boat Construction
- Infusion/RTM
- Corrosion resistance
- Storage Tanks
- Floors
- Pultrusion

TYPICAL PROPERTIES *1

Uncured Resin

Test

Viscosity, 77° F

Specific Gravity, 77° F

Curing Property, 77° F

Gel Time, 77° F

Time to Peak

Value

100-200cps

1.05

1% MEKP 9% active Orca 981

varies

varies

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ORCA 511 Epoxy Bisphenol-A Vinyl Ester

Cured Resin*2

<u>Test</u>	<u>Value</u>
Tensile Modulus	456,569 psi
Tensile Strength	12,228 psi
Flexural Strength	20,618 psi
Flexural Modulus	604,893 psi
Elongation (%)	2.9%
Barcol Hardness, 934-1	54
Heat Distortion Temp.	221°F-239°F

Laminated Physical Properties*3

<u>Test</u>	<u>Value</u>
Tensile Modulus	1,669,821 psi
Tensile Strength	19,913 psi
Flexural Strength	28,589 psi
Flexural Modulus	1,351,217 psi

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

*2 Thickness: 3 mm

After Cure: 176°F x 2hrs, 248°F x 2hrs

*3 #450 Chopped Strand Mat 3 plies

Glass Content: 33%

After Cure: 176°F x 2hrs, 248°F x 2hrs

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 511 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 Safety Data Sheet before working with this product

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