

## Orca 316 LS/DCPD/ISO Blend Polyester Resin



# 316

### Description:

Orca 316 is low styrene ISO, thixotropic, polyester resin designed for fabrication of small to large FRP parts at an ambient temperature. Orca 316 is pre-promoted for curing at room temperature with the addition of methyl ethyl ketone peroxide (MEKP) initiator. Orca 316 is designed to be used with both the spray-up and hand-lay application technique.

### Features:

- Extremely fast wet out and Roll out
- Low styrene emission
- Good impregnation
- Moderate trim time
- High Strength
- Corrosive resistance

### Uses:

- Yacht/Boat Construction
- Manufactured parts
- Spray up process
- Hand Lay-up application
- Mold Construction

### TYPICAL PROPERTIES \*1

#### Uncured Resin

<u>Test</u>	<u>Value</u>
Viscosity, 77° F	varies
Specific Gravity, 77° F / 77° F	1.1
Curing Property, 77° F	1% MEKP 9% active Orca 981
Gel Time 77° F	Varies
Time to Peak	Varies
Peak Exothermic Temp.	Varies

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### Cured Resin \*2

<u>Test</u>	<u>Value</u>
Tensile Strength	8,690 psi
Flexural Strength	16,658 psi
Flexural Modulus	575,050 psi
Tensile Strength	306,308 psi
Elongation (%)	1.5 – 1.7%
Barcol Hardness, 934-1	47
Heat Distortion Temp.	165°F - 185°F

### Laminated Physical Properties \*3

<u>Test</u>	<u>Value</u>
Tensile Strength	15,999 psi
Flexural Strength	23,334 psi
Flexural Modulus	1,045,485 psi
Tensile Modulus	1,052,874 psi

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

\*2 Thickness: 3 mm

After Cure: 158°F × 6hrs

\*3 #450 Chopped Strand Mat 4 plies

Glass Content: 27.6 %

After Cure: 158°F × 6hrs

## 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 316 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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