

**Orca**



**Composites**

**555**

**Description:**

Orca 555 is a V/E, thixotropic resin designed for fabrication of small to large FRP parts at an ambient temperature. Orca 555 is great for moldings that have particularly high static or dynamic loads, such as pipe, tanks, marine applications, duct work and flooring applications. VE resins have excellent resistance to sustained heat. Orca 555 is pre-promoted for curing at room temperature with the addition of methyl ethyl ketone peroxide (MEKP) initiator. Orca 555 is designed to be used with both the spray-up and hand laid application technique.

**Features:**

- 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
- Mold Making

**TYPICAL PROPERTIES\*1**

**Uncured Resin**

**Test**

**Value**

Viscosity, 77°F	350-450cps
Specific Gravity, 77°F	1.05
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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\*1 Values are representative. Specification limits are available upon request.

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## Orca 555 V/E Resin

### Cured Resin\*2

<u>Test</u>	<u>Value</u>
Tensile Modulus	464,121psi
Tensile Strength	12,618 psi
Flexural Strength	20,015 psi
Flexural Modulus	536,640 psi
Elongation (%)	4.5%
Barcol Hardness, 934-1	41
Heat Distortion Temp.	229°F-249°F

### Laminated Physical Properties\*3

<u>Test</u>	<u>Value</u>
Tensile Modulus	1,666,326 psi
Tensile Strength	19,871 psi
Flexural Strength	22,994 psi
Flexural Modulus	993,550 psi

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

\*2 Thickness: 3mm

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 555 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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