

Orca 245 Class 1 FR Resin



245

Description:

Orca 245 is a class 1 fire retardant, low VOC resin designed for fabrication of small to large FRP parts at an ambient temperature. Orca 245 is pre-promoted for curing at room temperature with the addition of methyl ethyl ketone peroxide (MEKP) initiator.

Features:

- High Elongation
- Fire Retardant
- Good mechanical strength
- Meets ASTM E 84 Class I flame spread and smoke requirements

Uses:

- Yacht/Boat Construction
- Manufactured parts
- Recommended for Hand lay-up and Spray

TYPICAL PROPERTIES *1

Uncured Resin

Test

Viscosity, 77°F*2

Specific Gravity, 77°F

Curing Property, 77°F

Gel Time 77°F

Time to Peak

Value

600-800cps

1.15

1% MEKP 9% active ORCA 981

Varies

Varies

Fire Resistance Ratings: Glass Mat Laminates

-ASTM D-757-74 (Glo-Bar Test):	No Burning Rate (burn time less than 5 sec)
-ASTM D-635-74:	No Burning Rate (burn time less than 5 sec)
-ASTM E-84 (Tunnel Test):	Class 1 Rating
	Flame Spread Index: 10
	Smoke Index: 265
-ASTM D-2863-75:	36.0 Min

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Cured Resin *2

<u>Test</u>	<u>Value</u>
Tensile Modulus	2,130,015 psi
Tensile Strength	30,505 psi
Tensile elongation (%)	1.8%
Flexural Strength	65,225 psi
Flexural Modulus	2,210,010 psi
Compressive Strength*3	55,805 psi
Barcol Hardness, 934-1	40-45
Water Absorption (24hr @ 77°F)	0.0013%
Water Absorption (2hr @ 212°F)	0.0061%

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

*2 #3 spindle at 60RPM

*3 12 Plies – 181 cloth

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 245 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.

Shelf life on this material is 3 months if stored properly

Safety

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

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