



100

Description:

Orca 100 is DCPD, polyester resin designed for fabrication of small to large FRP parts at an ambient temperature using the RTM and Infusion process. Orca 100 is pre-promoted for curing at room temperature with the addition of methyl ethyl ketone peroxide (MEKP) initiator. Orca 100 is designed to be used with both the RTM, VRTM and VIP application technique.

Features:

- Extremely low viscosity
- Ortho
- Moderate trim time
- Early development of Barcol Hardness
- DCPD

Uses:

- Yacht/Boat Construction
- Manufactured parts
- RTM, VARTM, INFUSION (VIP)

TYPICAL PROPERTIES *1

Uncured Resin

<u>Test</u>	<u>Value</u>
Viscosity, 77° F	150-200cps
Specific Gravity, 77° F / 77° F	1.1
Curing Property, 77° F	1% MEKP 9% active
Gel Time 77° F	28-32 minutes
Time to Peak	45-55 minutes
Peak Exothermic Temp.	122° F- 158° F

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

051100D_Orca 100 DCPD Polyester Resin

Cured Resin *2

<u>Test</u>	<u>Value</u>
Tensile Strength	9,936 psi
Tensile elongation (%)	2.0
Water absorption (%)	.16
Heat distortion temp. ©	74
Barcol Hardness, 934-1	45

Laminated Physical Properties *3

<u>Test</u>	<u>Value</u>
Tensile Strength	17,032 psi
Flexural Strength	30,374 psi
Flexural Modulus	1,107,099 psi
Tensile Modulus	1,356,906 psi
Barcol Hardness, 934-1	55

* 2. Thickness : 3 mm
After Cure: 158° F × 6hrs

* 3. #450 Chopped Strand Mat 2 plies
#570 Roving Cloth 2 plies
Glass Content: 40 %
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 100 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

The information herein is general information designed to assist customers in determining whether Orca products are suitable to their applications. Orca products are intended for sale to industrial and commercial customers. We require customers to inspect and test our products before use and to satisfy themselves as to contents and suitability for their specific applications. **Nothing herein constitute any warranty express or implied, including any warranty of merchantability or fitness for a particular purpose**, nor is any protection from any law or patent to be inferred. The exclusive remedy for all proven claims is limited to replacement of our materials and in no event shall we be liable for special, incidental or consequential damages.

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