



Orca Guard Polyester Gel Coat

DESCRIPTION

Orca Guard Gel Coat is a prepromoted, thixotropic, neopentyl glycol isophthalic polyester gelcoat designed for spray applications. It is designed for use in synthetic marble applications.

BENEFITS

- Low HAP content allows product to meet composites MACT standards
- Superior UV stability over conventional products
- Superior physical properties give excellent thermal shock test results
- Typical test results are more than twice the ANSI Z124 thermal cycle test requirement
- Lower styrene emissions reduce occupational exposures
- Improved transfer efficiency with less overspray generates less waste
- No loss in processing characteristics over conventional products.
- Gives excellent color, clarity, air release and flow characteristics.
- Pour times at 30-60 minutes are typical.

APPLICATION GUIDELINES

- A. All ORCA thixotropic polyester gel coats should be mixed well prior to use.
- B. MEKP levels should be kept between 1.0% and 2.5%
- C. Gel coat should not be applied at temperatures below 64°F/18°C.
- D. Recommend spraying 3 passes at 5-8mils allowing a short flash time between passes.

MINIMUM STORAGE STABILITY

The Orca Guard gel coat is stable for three months from date of production when stored away from sunlight at no more than 77°F/25°C. Storage at elevated temperatures will reduce shelf life. After extended storage, some drift may occur in gel time or viscosity.

SAFETY

See appropriate Material Safety Data Sheet for guidelines.

Typical Cast Mechanical Properties *

		Test Method
Tensile Strength, psi/MPa	12,100	ASTM D 638
Tensile Modulus, psi/GPa	600,000	ASTM D 638
Tensile Elongation, %	2.5	ASTM D 638
Flexural Strength, psi/MPa	22,100	ASTM D 790
Flexural Modulus, psi/GPa	620,000	ASTM D 790
Heat Distortion Temperature °F/°C @ 264 psi	167/75	ASTM D 648

*Typical properties are not to be construed as specifications

Typical Cast Mechanical Properties *

	Typical Range	
	Part A	Part B
Viscosity @ 77°F/25°C, RVF Brookfield Spindle #4 @ 20 RPM, cps.	3200-4200	3200-4200
Thix ratio (2:20 RPM)	6.0-7.5	6.0-7.5
Gel Time @ 77°F/25°C (1.5% of a 9% active oxygen MEKP), minutes	4.0-6.0	7.0-9.0
Exotherm Time, minutes	6.0-12.0	6.0-12.0
Exotherm Temperature, °C	190-220	190-220
Film Cure, minutes	35-45	45-60
HAP Content, %	40-43	40-43

ISO 9001:2000 CERTIFIED

The Quality Management Systems at every manufacturing facility have been certified as meeting ISO 9001:2000 standards. This certification recognizes that each facility has an internationally accepted model in place for managing and assuring quality. We follow the practices set forth in this model to add value to the resins we make for our customers.

FOOTNOTES

(1) Gel times shown are typical but may be affected by catalyst type and level, and by gel coat, mold and shop temperature. Variations in curing characteristics can be expected between different lots of catalysts and at extremely high humidities. It is recommended that the fabricator check the curing characteristics of a small quantity of gel coat under actual operating conditions prior to use.

(2) Based on tests at 77°F/25°C and 50% relative humidity. All tests performed on unreinforced castings. Thixotropic components are excluded from casting samples. Castings prepared using 1.0% MEKP, 0.25% Cobalt 6% post cured for 5 hours at 212°F/100C.

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.