

VELR 4000

Initial Technical Data Sheet

Description: **SprayCore**[®] **VELR 4000** is a High-Performance ceramic compound resin used in a variety of ways to prevent air voids, enhance the cosmetic appearance, rigidity and speed of production of fiberglass reinforced plastic products, and meets the stringent requirements of the Marine, Transportation, and Tub & Shower markets. SprayCore VELR 4000 is formulated with a unique Low HAP chemistry, is MACT Compliant and meets all current Federal regulations regarding emissions.

FEATURES & BENEFITS

- Low Exotherm
- Reduces air voids and dry fibers in laminates
- Eliminates surface cracks & Blemishes
- High Impact Resistance
- Reduces laminating & Preparation costs
- Maintains resiliency to resist cracks

TYPICAL MATERIAL PROPERTIES

Appearance	Packaging	Application Method	Approximate Coverage
Amber	Drum	Sprayable, Pumpable & Hand Applied	NA
Mix ratio	Preferred red dyed Catalyst	Gel Time Range*	Gel to Peak Range*
1.5 % (volume)	DHD-9 MEKP-925	15 – 25 min	4 - 10 mins.
Styrene	Peak Exo. Temp. (100 gm) °F / °C	Density Range, lb/gal	Viscosity Range
32%	325-375 / (162-190)	8.80 – 9.20	450-650 cps (rvf#2 @20 rpm)

OTHER TYPICAL MECHANICAL PROPERTIES

Test type	ASTM #	Avg. Value	Test Type	ASTM #	Avg. Value
Flexural Strength, psi / MPa	D-790	6,871 / 47	Elongation at Break (%)	D-638	TBD
Compression, psi / Mpa	D-790	22,184 / 153	Heat Distortion Temp. (F / C)	D-648	199 / 93
Tensile Strength, psi / Mpa	D-638	3,972 / 27	Gardner Impact, in.-lb. / Nm	D-5420	TBD
Tensile Modulus, psi / Mpa	D-638	242,109 / 1670	Hardness Shore D	D-2240	80-84

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EFFECT OF TEMPERATURE:

Application at temperatures between 65°F (18°C) and 95°F (35°C) will ensure proper cure, ideally above 75°F. Temperatures below 65°F (18°C) or above 95°F (35°C) will slow down or increase cure rate significantly. To ensure consistent dispensing between equipment, resin and catalyst, temperatures should be held reasonably constant throughout the year. Resin in cured state behaves differently at elevated and low temperatures. See ITW Performance Polymers for specific values.

STORAGE AND SHELF LIFE:

Expected Shelf life of 3 months, where shelf life is based on continuous storage between 54°F (12°C) and 95°F (35°C). Prolonged exposure above 95°F (35°C) quickly diminishes the reactivity of the product and should be avoided.

PRODUCT USE:

Many factors beyond ITWPP's control and uniquely within user's knowledge and control can affect the use and performance of an ITWPP product in an application. Given the variety of factors that can affect the use and performance of our products, the user is solely responsible for evaluating the ITWPP product and determining whether it is fit for a particular purpose and suitable for the user's method of application. ITWPP recommends the User review all Safety Data Sheets, Technical Data Sheets and ITWPP's warranty and limited liabilities prior to use. These can be found at www.itwpp.com

SPECIAL NOTE:

This Data Sheet is Initial and subject to change. ITW Performance Polymers strongly recommends that all products are pretested for reactivity and performance on substrates be tested with the applications selected laminate or materials and in the anticipated service conditions to determine suitability.

DISCLAIMERS:

TECHNICAL INFORMATION: The technical information in, recommendations and other statements contained in this document are based upon good faith tests or experience that ITWPP believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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