

VFI®-2519 75 D BRUSHABLE HARD COAT

VFI-2519 75 D Brushable Hard Coat is a 3B:1A, brush-applied, polyurethane coating. It is used in conjunction with other hard coats as a patch repair or as the hard coat itself on small projects. It cures in thin films to provide structure to EPS foam for theming designs and fabrication. VFI-2519 offers a long pot life for extended workability and can be applied vertically without sagging. After sanding and priming, the hard coat can be painted to blend in with existing applications or to improve the aesthetics of smaller pieces.

- Convenient brush application with no need for large, expensive spray equipment
- High rigidity with outstanding resistance to impacts
- Increases aesthetics of small projects and blends well with existing hard coats
- Great for repairs, small sections, and specific curves
- Pre-measured containers ensure mixing accuracy for quick and easy application

PHYSICAL PROPERTIES	TEST METHOD	TEST RESULTS
Hardness Shore D	ASTM D 2240	75
Tensile Strength	ASTM D 412	3,834 psi
Elongation	ASTM D 412	7%
Tear Strength	ASTM D 624	196 pli
Yield Strength	N/A	3423 psi
Elastic Modulus	N/A	24,476 psi
Impact Resistance Unnotched Izod	N/A	2.5 lbs/ib

LIQUID PROPERTIES	TEST METHOD	TEST RESULTS
Solids by Volume	ASTM D 2697	100%
Liquid Density A Side	ASTM D 2939	10.3 lbs/gal
Liquid Density B Side	ASTM D 2939	11.8 lbs/gal
Ratio by Volume (A:B)	N/A	1A:3B
Ratio by Weight (A:B)	N/A	1A:3.44B
Viscosity A Side	ASTM D 2196	200 cps
Viscosity B Side	ASTM D 2196	7000 cps
Pot Life	N/A	15 min
Recoat Window	N/A	<4 hrs
Flash Point	ASTM D 56	200 °F

MANUFACTURER OF HIGH PERFORMANCE POLYMERS

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THICKNESS REQUIREMENTS

To develop a uniform film over the piece, apply the coating at a minimum rate of 60 mils. The best film properties can be achieved at 100 mils or greater. If subsequent coats are needed, apply them within the 4-hour recoat window for ensured adhesion. The recoat window is based on testing at 50 mils. Applying the coating at a different millage may affect the recoat window.

EQUIPMENT

VFI-2519 can be applied to any prepped substrate with a brush or trowel.

SURFACE PREPARATION

Surfaces should be clean and free of oils, dirt, debris, or other contaminants. A primer or additional sanding prep may be required depending on the surface.

- EPS - The foam must be aged for at least 30 days so any gas can escape. We recommend using 2 PCF foam for an optimal cost-to-quality ratio, but 1-3 PCF is acceptable. Ensure that the surface is clean and dry before you begin applying.
- Wood - The wood should be dry and contain less than 11% moisture; otherwise, it should be primed or mist-coated (a light dusting followed by the main application of the coating).
- Metal - The surface must be cleaned by roughly sanding or sandblasting to SP6 to remove rust, mill scale, dirt, and other contaminants.
- Existing Hard Coat - Surfaces must be sanded and/or primed before application to ensure adequate long-term adhesion.

MIXING

Premix the Poly side (B) until uniform before combining it with the Iso side (A). The pot life can be extended by mixing smaller quantities (ex. 200 grams will yield a 15-20-minute pot life while the full mix will yield about an 8-minute pot life). If pouring the material by hand, the pre-weighed Iso must be poured into the pre-weighed Poly. Mix the two until uniform, then transfer them to a new container and mix until uniform again before using. VFI-2519 75 D Brushable Hard Coat must be fully mixed and used before the pot life expires. Mix times will vary depending on material volume and mixing method.

POST CURE

For proper adhesion, the temperature must stay between 50°F - 100°F during application. After the material cures, it can be sanded and painted to improve the aesthetics of the piece for material theming.

CLEANUP

Tools and equipment used to apply VFI-2519 can be cleaned with xylene or MEK.

STORAGE/SHELF LIFE

The shelf life of unopened containers is 12 months after the date of manufacture. Store the product between 60°F - 90°F in a clean, dry building. Once open, use it immediately. After opening, it is possible to store unused material by nitrogen purging both sides immediately after use.

PRECAUTIONS

VFI-2519 is not a UV color-stable product and has no long-term UV testing. If it's applied to a project meant for exterior applications, it must be top coated. Isocyanate in the A side may be irritating to the skin and toxic if inhaled. Avoid prolonged breathing of vapors or repeated skin contact. Use only with adequate ventilation. Do not thin or add foreign material to this product. See Safety Data Sheet for complete safety instructions.

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