

VFI®-6171 70 D QWIK SPRAY HARD COAT

VFI-6171 70 D Qwik Spray Hard Coat is a two-part, user-friendly, polyurethane cartridge system that uses the portable, cost-effective VFI-7500 Qwik Spray Gun. It is designed as long-lasting protection for theming sculptures, parts, and components. Since the Qwik Spray System® is portable, VFI-6171 can also be used for on-site touch-up work or bonding large pieces together. It is mainly used as a durable protective layer over foam for interior applications that require fire testing. Once cured, the coating can be sanded and painted to make repairs or improve aesthetics on any project.

- Convenient and hassle-free setup allows for cost-effective, portable application
- 70 D hardness provides a rigid layer that protects against high impacts
- A fire retardant formula that passes ASTM E84 testing for indoor and outdoor use
- No cleaning solvents are required; simply throw away the cartridges once empty
- Theming designs and fabrications can easily be sanded and painted
- Contains no VOCs, is 100% solids, and is an environmentally safe solution

PHYSICAL PROPERTIES	TEST METHOD	TEST RESULTS
Hardness Shore D	ASTM D 2240	70
Tensile Strength	ASTM D 412	4,200 psi
Elongation	ASTM D 412	25%
Tear Strength	ASTM D 624	325 pli

LIQUID PROPERTIES	TEST METHOD	TEST RESULTS
Solids by Volume	ASTM D 2697	100%
Specific Gravity Mixed	N/A	1.18
Ratio by Volume (A:B)	N/A	1A:1B
Viscosity A Side	ASTM D 2196	1,000 cps
Viscosity B Side	ASTM D 2196	3,000 cps
Tack Free	N/A	80 sec
Cure to Handle	N/A	5-7 min
Recoat Window	N/A	20 min

MANUFACTURER OF HIGH PERFORMANCE POLYMERS

Toll-Free 800-307-9218 | volatilefree.com | info@volatilefree.com

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THICKNESS REQUIREMENTS

For smaller projects, applying 40-80 mils of coverage is recommended. If the project is for outdoor use, apply a thicker coat between 60-120 mils, especially when high impact is expected. If subsequent coats are needed, apply them within the 20-minute recoat window for ensured adhesion. If you exceed the open window, we recommend using VFI-1007 Solvent Based Polyurethane Primer to create adhesion between layers.

EQUIPMENT

VFI-6171 requires a low-pressure, plural component spray applicator gun like VFI-7500 Qwik Spray Gun, which can hold 750 mL dual cartridges. To run the Qwik Spray Gun, an air compressor that can provide dry air and a minimum of 100 psi and 10 CFM of constant pressure is also required. Once you start spraying, you cannot stop until the cartridge is empty without switching tips.

SURFACE PREPARATION

Remove contaminants from the surface that may affect adhesion, including dirt, debris, and oils.

- EPS - The foam must be aged for at least 30 days so any gas can escape. We recommend using non-recycled EPS bead 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 spraying.
- 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).

MIXING

Bring the product to a minimum temperature of 65°F before use. As a cartridge-based system, VFI-6171 does not require mixing, except if the material is visibly separated. If separation is visible, shake the cartridge until uniform.

POST CURE

Once the coating has cured, it can be sanded, primed, and painted to provide the desired aesthetic. Sanding is essential for increased adhesion and a smooth, consistent finish when applying subsequent coats, priming, or painting.

CLEANUP

Disconnect the cartridge from the air-atomizing tip, remove it from the applicator frame, and throw it away. Never soak the gun in a cleaning solvent. If there is residue on the spray gun, you can use xylene or MEK to wipe it off before it fully sets.

STORAGE/SHELF LIFE

The material shelf life is 6 months from the date of manufacture. Store in a dry, temperature-controlled space between 60°F - 90°F.

PRECAUTIONS

VFI-6171 is not UV color stable and has no long-term UV testing. The product contains isocyanate, which may irritate the skin on contact and is toxic when inhaled. Avoid breathing in vapors or repeated skin contact. While using the Qwik Spray System, the surface and ambient temperature should stay between 40°F - 120°F. When spraying, use a supplied air respirator or respirator with forced air ventilation in a chemically approved spray booth. Do not thin or add foreign material to the product. See the Safety Data Sheet for all safety information.