

VFI®-6160 60 D SPRAY HARD COAT

VFI-6160 60 D Spray Hard Coat is a premium, 100% solids, fast setting, spray-applied coating. Once applied, it creates a protective shell over foam and is used for interior or exterior applications when covered with a UV-stable top coat. As a polyurea hybrid, it has high durability, good thermocycling, and strong impact resistance. VFI-6160 can be sanded within an hour of curing and is paintable for theming purposes. It is a fire-retardant material that will meet safety requirements when needed. Its high tensile strength and elongation make it a tough, versatile coating for encapsulating and protecting a piece.

- Good for outdoor use when used with a UV-stable top coat
- Sandable within an hour of application
- Smooth glass-like finish, requiring minimal post work
- Similar viscosities allow for easy spraying and staying on ratio
- Capable of passing ASTM E84 fire testing

PHYSICAL PROPERTIES	TEST METHOD	TEST RESULTS
Hardness Shore D	ASTM D 2240	60
Tensile Strength	ASTM D 412	3,000 psi
Elongation	ASTM D 412	380%
Tear Strength	ASTM D 624	550 pli

LIQUID PROPERTIES	TEST METHOD	TEST RESULTS
Solids by Volume	ASTM D 2697	100%
Specific Gravity Mixed	N/A	1.13
Ratio by Volume (A:B)	N/A	1A:1B
Viscosity A Side	ASTM D 2196	800 cps
Viscosity B Side	ASTM D 2196	800 cps
Gel Time	N/A	10 sec
Tack Free	N/A	2 min
Cure to Handle	N/A	5 min
Recoat Window	N/A	30 min
Full Cure	N/A	5 days

MANUFACTURER OF HIGH PERFORMANCE POLYMERS

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THICKNESS REQUIREMENTS

We recommend spraying at a minimum rate of 40 mils to develop a uniform film that protects the piece. The best film properties can be obtained at 60 mils or greater. Multiple passes can be done to increase thickness but must stay within the open window of 30 minutes. If you exceed the open window, we recommend using VFI-1007 Solvent Based Polyurethane Primer to create adhesion between layers.

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 opened, use immediately. After opening, it is possible to store unused products by nitrogen purging both sides immediately after use. If you don't nitrogen purge the material, moisture contamination can occur in the A & B sides. Moisture contamination can occur in both sides if you don't nitrogen purge the material. Moisture may create a hardened film over and in the A side (Iso). If there is moisture contamination within the B side (Poly), it will cause pinholes and foaming once mixed and sprayed. VFI-8403 Dryer can be used to reduce undesired effects in the B side.

EQUIPMENT

VFI-6160 requires a plural component machine capable of heating the product and providing at least 2300-2500 PSI of constant pressure. The Poly side requires you to run a drum mixer during application. For additional questions, contact VFI or your VFI sales rep.

SURFACE PREPARATION

- EPS - Ensure that the EPS has been aged at least 30 days. Anything between 1 and 3 PCF is acceptable, but for an optimal cost-to-quality ratio, we recommend using 2 PCF foam. Once clean and dry, VFI-6160 can be applied directly to the EPS.
- Wood - The wood should be dry and contain less than 11% moisture; otherwise, it should be primed or mist-coated (a light dusting of the coating followed by the main application of the coating).
- Urethane or Plastic - First, sand the urethane or plastic and then apply a general urethane primer to ensure good adhesion to the substrate.

MIXING

The B side (Poly) must be premixed until uniform before use and continuously mixed throughout the application. The A side (Iso) does not need to be mixed. Mix times will increase if stored for long periods between use.

POST CURE

The material will need at least 3 hours to cure before heavy movement is allowed, but it is sandable within an hour. Light movement is acceptable sooner than 3 hours if needed. If spraying in thinner passes, it may require a longer post-cure time.

CLEANUP

The preferred cleanup solvent is xylene or MEK. For cleaning and flushing out lines it is recommended to use our VFI-8005 pump flush to fully clean out the lines.

CROSS CONTAMINATION

VFI-6160 should be able to run behind most polyureas and polyurethanes without issue, but VFI always recommends a test mix on the side before use. The test mix can be taken by combining some of the new material with some material within the spray lines and mixing them to see if there's a reaction.

PRECAUTIONS

This product contains isocyanate, which may irritate the skin and is toxic if inhaled as particulate matter. Avoid prolonged breathing of vapors and repeated skin contact. When spraying, use a supplied air respirator or a respirator with forced air ventilation in a chemically approved spray booth. Do not add foreign material to the product. See Safety Data Sheet for all information regarding safety.

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