

VFI®-3130 60 D SPRAY HARD COAT

VFI-3130 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-3130 can be sanded within an hour of spraying and is fully paintable for theming purposes. It is Class A fire-tested to meet safety requirements when needed. Its high tensile strength and elongation make it a tough, versatile coating for encapsulating and protecting a substrate.

- A 60 D hardness gives the coated layer impact resistance to absorb pressure without breaking
- Fast cure time allows it to be sprayed and sanded on the same day without multiple coats
- Can be used to create an aesthetic for small and large interior or exterior projects
- Easy spraying and a slower gel time allow it to spray smoothly in a single pass
- Can be sanded in as little as 45 minutes of curing
- Class A fire testing through ASTM E84

PHYSICAL PROPERTIES	TEST METHOD	TEST RESULTS
Hardness Shore D	ASTM D 2240	60
Tensile Strength	ASTM D 412	3,400 psi
Elongation	ASTM D 412	500%
Tear Strength	ASTM D 624	525 pli
Cold Temperature Flexibility	ASTM D 3111	Pass
Solid Material Density	N/A	73.3 lb/ft ³
Water Vapor Permeability	ASTM E 96	1.25 perm
Water Absorption	ASTM E 96	<1%
Permanent Set	N/A	10%

LIQUID PROPERTIES	TEST METHOD	TEST RESULTS
Solids by Volume	ASTM D 2697	100%
Liquid Density A Side	ASTM D 2939	9.8 lbs/gal
Liquid Density B Side	ASTM D 2939	9.8 lbs/gal
Mixed Liquid Density	ASTM D 2939	9.8 lbs/gal
Specific Gravity A Side	N/A	1.17 g/mL
Specific Gravity B Side	N/A	1.17 g/mL
Specific Gravity Mixed	N/A	1.17 g/mL
Ratio by Volume (A:B)	N/A	1A:1B
Viscosity A Side	ASTM D 2196	600 cps
Viscosity B Side	ASTM D 2196	1,500 cps
Mixed Viscosity	N/A	1,050 cps
Gel Time	N/A	12 sec
Tack Free	N/A	25 sec
Recoat Window	N/A	4 hours
Place into Service	N/A	6 hours light; 48 full
Full Cure	N/A	3 days

MANUFACTURER OF HIGH PERFORMANCE POLYMERS

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THICKNESS REQUIREMENTS

For light-duty applications, 40-80 mils can be sprayed to develop a uniform film that protects the piece. 80-120 mils of coverage can be sprayed for heavy-duty applications when more physical abuse is expected. Subsequent coats can be applied as necessary within the 20-minute recoat window. Coating outside of the recoat window could result in adhesion problems. If you exceed the open window, we recommend using VFI-1007 Solvent Based Polyurethane Primer to create adhesion between layers.

EQUIPMENT

VFI's recommended specifications for a high-pressure, plural component spray rig is to run it at 150°F-155°F and 2,500 psi of constant pressure with high-pressure heated hoses and 10 ft whip hoses. Gun tips will vary by the project and will need to be adjusted on site. The following machines are capable of meeting these specifications:

- Graco A-XP1 air sprayer provides up to 3,500 psi of constant pressure and 170°F with a 1.5 gal/min output and 210 ft hoses. Use with any Probler P2 or Fusion gun.
- Graco Reactor 2 E-XP2 electric sprayer provides up to 3,500 psi of constant pressure and 190°F with a 2 gal/min output and 310 ft hoses. Use with any Probler P2 or Fusion gun.
- Graco Reactor 2 H-XP2/XP3 hydraulic sprayers provide up to 3,500 psi of constant pressure and 190°F with 1.5 or 2.8 gal/min outputs and 310 or 410 ft hoses. Use with any Probler P2 or Fusion gun.
- PMC PHX-2 or 25 hydraulic sprayers, ideal for small or medium-scale applications, provide up to 3,000 psi of constant pressure and 190°F with outputs just under 2 gal/min and 210-410 ft hoses. Use with the AP-2 Air Purge, PX-7 Mechanical Purge, or Xtreme Spray Gun

SURFACE PREPARATION

- EPS - The foam should be aged for at least 30 days to allow any gas to escape. We recommend non-recycled EPS bead 2 PCF foam for an optimal cost-to-quality ratio, but anything between 1 and 3 PCF is acceptable. Once clean and dry, VFI-3130 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 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

Bring VFI-3130 to a minimum temperature of 65°F before use. Premix the Poly (B side) components until uniform before spraying. The time it takes to mix the product will depend on volume and mixing method. All powder should be mixed in from the bottom of the drum. The A side does not need to be premixed.

POST CURE

The coated piece can be sanded within an hour of spraying. Once cured, VFI-3130 must be top coated with paint or an equivalent coating for protection from UV rays. While the finished project can be placed into service in as little as 6 hours with a light application, complete curing may take up to 3 days.

CLEANUP

VFI recommends cleaning tools and spray equipment with xylene or MEK. Immediately after spraying, flush spray lines with VFI-8005 Pump Flush to prevent damage from product buildup.

STORAGE/SHELF LIFE

The material shelf life is 12 months from the date of manufacture. Store in a dry, temperature-controlled space in sealed and unopened containers between 60°F - 90°F. Once open, use it immediately. Opened containers can be resealed with a nitrogen purge, but the material shelf life will ultimately shorten. 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.

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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