

VFI®-2839 95 A ALIPHATIC SPRAY COATING

VFI-2839 95 A Aliphatic Spray Coating is a fast-setting, two-part polyurea rubber that is best applied by spray as an encapsulant material to protect edges on smaller pieces like table edging. It has excellent physical properties such as color stability, moisture insensitivity, and durability for versatile applications in indoor and outdoor environments. Good chemical and solvent resistance allow the material to withstand harsh environments and climate changes.

- Completely UV stable for outdoor and indoor use
- 100% solids and 0 VOCs
- Offers easy, fast-setting spray application
- Smooth finish with great flexibility

PHYSICAL PROPERTIES	TEST METHOD	TEST RESULTS
Shore Hardness	ASTM D2240	97 A
Tensile Strength	ASTM D412	1,200 psi
Elongation at Break	ASTM D412	300%
Tear Strength (Die C)	ASTM D624	400 pli
Abrasion Resistance	ASTM D4060	N/A
Impact Resistance	ASTM D256	N/A
Water Absorption	ASTM D471	N/A
Weathering	N/A	UV Stable
Linear Shrinkage	N/A	N/A
Adhesion Strength (prepared steel/concrete)	N/A	>500 lb/in ²
Standard Color	N/A	Black

LIQUID PROPERTIES	TEST METHOD	TEST RESULTS
Solids by Volume	ASTM D2697	100%
Mix Ratio by Volume	N/A	1A:1B
Weight per Gallon A Side	ASTM D1475	8.68 lb/gal
Weight per Gallon B Side	ASTM D1475	8.47 lb/gal
Viscosity A Side	ASTM D2196	800 cps
Viscosity B Side	ASTM D2196	1,000 cps
Gel Time	N/A	6 seconds
Tack-Free Time	N/A	45 seconds
Cure to Handle	N/A	N/A
Recoat Window	N/A	20 minutes
Full Cure Time	N/A	3 days
Volatile Organic Compounds	N/A	0

MANUFACTURER OF HIGH-PERFORMANCE POLYMERS
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THICKNESS REQUIREMENTS

The sprayable rubber should be applied in layers at least 40 mils thick, but applications of 80 mils or more will produce the most optimal results. Allow the first coat to become tacky before applying additional coats and stay within the 20-minute recoat window. If the coating fully cures between coats, it may cause delamination.

EQUIPMENT

When spraying, it requires heated, airless plural-component spray equipment capable of producing a minimum pressure of 2,000 psi and heat between 140°F-160°F. Spraying at higher pressures, between 2,000-3,000 psi, may provide better mixing and optimal physical properties. It can also be used in an injection molding system. 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 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

Surfaces must be clean and free of contaminants such as dirt, dust, or debris. A release agent must be used on all products intended for demolding to prevent unwanted adhesion and extend the life of the molding surface. When enhanced adhesion is needed, use VFI-#11 on cementitious and masonry surfaces. Steel should be white blasted per SSPC-SP10 to remove all dust, coating, and mill scale. Sandblast or shot blast all concrete surfaces to achieve a profile equal to 80-100 grit sandpaper.

MIXING

Premix the B side (Poly) until uniform before use. Mix times may vary based on volume and mixing method. VFI-2839 must be brought to a minimum of 65°F for proper mixing and application.

CLEANUP

The preferred cleanup solvent is xylene or MEK. When flushing out spray lines, we recommend using VFI-8005 Pump Flush to fully clean out the lines.

STORAGE/SHELF LIFE

Store between 60°F - 90°F in a clean, dry building. The shelf life of unopened containers is 12 months after the date of manufacture. Keep the material above 60°F to prevent it from freezing and ship it in heated trucks. Once open, use it immediately. If you plan on storing after opening, both sides must be nitrogen purged.

PRECAUTIONS

VFI-2839 contains aliphatic isocyanate, which can irritate the skin and is toxic if inhaled as particulate matter. Avoid prolonged breathing of vapors and repeated skin contact by utilizing proper PPE. Use only with adequate ventilation. Protect the material from moisture exposure, as water will cause the A side (Iso) material to generate carbon dioxide, resulting in high pressure in closed containers. Do not thin or add foreign material to the product. See Safety Data Sheet for complete safety instructions.