

## WATERPROOFING MEMBRANE SYSTEM

- **Description**  
VFI-425 Aromatic Polyurea Hybrid is a 100% solids, two component, fluid applied Coating. This product is durable and fast setting, has a very low permeability and will not deteriorate under ground.
- **Usage**
  - VFI-425 is primarily used for waterproofing foundations and structures. Can be applied directly to the foundation or on the urethane foam or expanded polystyrene insulation. It will protect concrete from acids and alkaline materials.
- VFI-425 is IAPMO registered for use as a shower pan waterproofing membrane. ANSI A118-10.
- This material should be installed only on the side of the wall that will have positive water pressure.
- Contact your VFI representative for additional information about this product and its certification.
- **Color**  
Black. Custom aromatic colors are available upon request but may change with UV exposure.

### Physical Properties

- **Hardness**  
ASTM D-2240  
Shore A 91 - 95  
Shore D 48 - 51
- **Tensile Properties**  
ASTM D-412  
Strength 1839 psi  
Elongation 35%  
Elastic Modulus 8778 psi  
Yield Strength 943 psi  
Permanent Set 5% max
- **Tear Strength**  
ASTM D-624 152 pli
- **Adhesion Strength:**  
ASTM D-4541  
Prepared steel - 675 lbs. / in.<sup>2</sup> with primer cohesive failure. Prepared concrete - 825 lbs. / in.<sup>2</sup> with concrete failure.
- **Cold Temperature Flexibility**  
ASTM D-3111  
0.25 inch mandrel @ 6°F Passed

### Weather & Environmental Performance

- **Service Temperature**  
-50°F to 180°F
- **Weatherability QUV Test Data**  
ASTM G-53  
No cracking, checking or loss of integrity after 2000 hours. This is an aromatic product. Light colors yellow when exposed to UV light.
- **Chemical Resistance**  
Good hydrolytic stability to 180°F. Good resistance to inorganic bases, acids, and hydrocarbon solvents. Fair resistance to oxygenated and chlorinated solvents.
- **Fire Resistance**  
Not rated
- **Hydrolytic Properties**
  - **Water absorption**  
ASTM D-471  
1 week @ room temperature 1.0%
  - **Water Vapor Permeability**  
ASTM E-96  
0% R.H. @ 73°F 29 mil film: 0.64 perms

### Liquid Component Properties

- **Ratio**  
1 to 1 by Volume
- **Viscosity**  
"A" side 800 cps @ 77°F  
"B" side 700 cps @ 77°F

- **Solids**  
Weight: 100%  
Volume: 100%
- **Coverage**  
mil/sq/ft/gal 1600
- **Liquid Material Density & Specific Gravity**  
"A" side 9.53 lbs/gal (SG 1.144 g/ml)  
"B" side: 8.28 lbs/gal (SG 0.994 g/ml)  
Depending on color
- **VOC's**  
Conforms to Air Pollution regulations. Contains no Volatile Organic Compounds.

- **Toxicity**  
ISO component contains polymeric Isocyanate requiring fresh air supply respirator, gloves and protective clothing during application.
- **Storage Stability or Shelf Life**  
"A" side 6 months in unopened containers @ 50-90°F.  
"B" side 12 months in unopened containers @ 50-90°F.
- **Reactivity**
  - **Gel Time** 5-10 seconds room temperature
  - **Set Time** 1 minute
  - **Put Into Service Time** After 4 hours of cure time at 70° F minimum, allow light duty. After 24 hours, full duty.
  - **Cure Time** Full cure in 2-7 days

## Application

- **Equipment**  
High pressure, heated plural component spray equipment, capable of maintaining 1500 psi and maintaining a temperature of 130° F to 150° F during application. Impingement mixing, air purge spray guns are suggested for ease of applications.
- **Material Preparation**  
The product must be over 70° F for proper mixing and application.
- **Mixing**  
Proper mixing equipment must be used to mix the Poly (B) side. Mix for 20 minutes before using. Please contact your VFI representative for specific mixer recommendations.
- **Primers**  
Sealing porous surfaces with VFI-1007 is recommended. No primer is needed when spraying onto non-degraded foam. When spraying on other surfaces refer to the VFI primer selection chart.
- **Substrate Preparation**  
All surfaces must be free of contaminants and be able to provide mechanical adhesion on a solid substrate. Sandblast or shotblast smooth or contaminated concrete surfaces to clean and achieve a profile equal to 80-100 grit sand paper. Refer to SP13/NACE 6. Contact your VFI representative for specific instructions.
- **Clean-up Solvent**  
Xylene, MEK. For reduced fire hazard use glycol ethers or environmentally acceptable chlorinated solvents.
- **Limitations**  
Please contact VFI representative for further technical information for your specific application.
- **Precautions**  
See Material Safety Data Sheet for complete safety data. This product can not be mixed with any other products.
- **Thinning**  
Do not thin.
- **Packaging**  
5 gallon pails  
15 gallon ponies  
55 gallon drums  
270 gallon totes

CORPORATE OFFICE:/P.O. BOX 344 – BROOKFIELD, WI 53008 /800 307-9218 / 262 787-0400/FAX ; 262 787-0500

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