



VFI-727 POLYURETHANE SPRAY FOAM SYSTEM

Overview

■ **Description**

VFI-727 is a two-component; liquid spray applied, HFC blown, rigid polyurethane foam. VFI-727 can be ordered in three reactivity grades to meet a wide range of surface temperature conditions: Regular (R), Winter (W) or Summer (S).

■ **Usage**

VFI-727 is a high density; spray applied polyurethane foam roofing insulation. VFI-727 must be coated with a VFI roof coating, or another appropriate coating. VFI-540FR and VFI-900 are UL rated. VFI-727 is used below grade with VFI-425 waterproofing membrane

Physical Properties

■ **Nominal Density, Sprayed**

ASTM D-1622
 PCF 2.5 to 3.0

■ **Thermal Resistance**

ASTM C518
 1.0 in.90 day heat conditioned 6.6
 (25mm) thickness, min, °F ft² h/Btu (K m²/W)
 at mean temperature 75°F (24°C)

■ **Compressive Strength**

ASTM D 1621
 At yield or 10% deformation,
 52 whichever comes first min, psi (kPa)

■ **Water Vapor Permeability**

ASTM E96
 1.1 max, perm-inches (ng/Pa s m)

■ **Water Absorption**

ASTM D2842
 Max volume % 0

■ **Tensile Strength**

ASTM D1623
 Min psi (kPa) 101

■ **Response to Thermal and Humid Aging**

ASTM D2126
 1.3 max, volume change %

■ **Closed Cell Content**

ASTM D6226
 min, % 98

Weather & Environmental Performance

■ **Toxicity**

Skin contact or inhalation of Isocyanate can cause sensitization. Individuals with asthma, respiratory disease or allergies should not work with sprayed polyurethanes. Please see Safety Data Sheet for appropriate PPE.

■ **Water Absorption (%)**

ASTM D 2842 <1.00

■ **Water Vapor Permeability**

ASTM E 96
 Perm-inch 1.10

■ **Fire Resistance**

E -108 (UL-790) with VFI's FR coating applied on top of foam. Contact VFI for flame spread details.

Liquid Component Properties

■ **Viscosity @ 20°C**

ASTM D-1638
 "A" side 150-200 cps
 "B" side 800-1100 cps

■ **Specific Gravity @ 20°C**

ASTM D-1638
 "A" side 1.23
 "B" side 1.14

Application

■ Storage

Storage above 80°F will shorten shelf life and develop pressure in the drum. Vent drum pressure by slowly removing small bung. Polyol above 80°F can cause frothing and off ratio spraying. Shelf life is 6 months.

■ Mixing Ratio

By volume

% "A" 100

% "B" 100

■ Spray Reactivity

Cream / Tack free in seconds

Regular 5-7 / 11-14

Winter 3-4 / 8-11

Summer 7-8 / 15-17

■ Equipment

A 1:1 ratio spray proportioner capable of 1300 psi minimum and 2:1 transfer pimp is require. Hose heat and component heaters must maintain 130°F. Do not use diaphragm pumps.

■ Surface Preparation

Substrate must be clean, dry and primed. Do not spray when humidity is above 85%, or wind speed is above 10 miles per hr. Ensure that overspray will not enter vents or damage property. Apply at minimum thickness of one inch to a maximum of 2 inches per lift.

■ Precautions

- Keep Polyol drums out of direct sunlight.
- Open small bung slowly to relieve pressure.
- Do not agitate Polyol drum.
- Do not apply more foam than can be coated in a day.
- Welding or hot work should be completed before application of foam.
- Spray crews must wear appropriate personal protective equipment.
- Dispose of empty drums properly.

■ Warning!

Do Not Leave Foam Exposed or Unprotected Polyurethane foam is a serious fire hazard if improperly used.

Each person, company or corporation engaged in the manufacture, production, application, installation of polyurethane foam should carefully determine whether there is a potential fire hazard associated with such product in a specific usage and utilize all appropriate precautionary and safety measures as outlined in local, state and federal guidelines.

These physical property results are typical for this material as applied at our development facility under controlled conditions. The resultant properties can vary with changes in the application parameters; i.e., temperatures, thickness, metal embossment, processing equipment, mix head variations, throughout, etc.

As a result, these published properties are useful for evaluation guidelines. Physical property specifications should be determined from actual production processed material.

Polyurethane foam utilized as an interior insulation system, must be protected by an approved 15 minute, fire rated thermal barrier and meet federal, local & state Building Code approvals.

■ Thinning

Do not thin

■ Clean-up Solvent

Xylene, MEK. For reduced fire hazard use glycol ethers or environmentally acceptable chlorinated solvents.

■ Packaging

55 gallon drums

For more information, contact us today at **800-307-9218**

Corporate Office: P.O. Box 344 • Brookfield, WI 53008 • (800) 307-9218 • (262) 787-0400 • Fax (262) 787-0500 • www.volatilefree.com

This information and technical advice provided herein are believed to be reliable and accurate to the best knowledge of Volatile Free, Inc. As based on tests and should serve only as a recommendation. As the manufacturer, Volatile Free, Inc. makes no representations or warranties of any kind, expressed, implied or statutory, including but not limited to all implied warranties of merchantability or fitness for use for a particular purpose, or any other matter with respect to this product. Volatile Free, Inc. makes no representations or warranties as to the results of the use of the product and assumes no obligation or liability in connection therewith. Volatile Free, Inc. is not liable for any special, exemplary, punitive, incidental or consequential damages of any sort or kind from use of this product. The information provided herein is subject to change at any time without notice. Information changes may include, but are not limited to, commercial and technical changes, changes in pricing, physical characteristics and packaging.