PC 2800 HFO
Spray Foam Roofing
Technical Data Sheet

Product Design

PolyCon 2800 HFO is a Class A/B rated, next generation closed cell spray foam that provides a smooth surface, high R-value, monolithic blanket, of spray foam over an exterior roofing substrate. The medium density roofing foam can also be applied on horizontal surfaces such as parapets and mechanical equipment curbs. PC 2800 HFO provides reliable and consistent performance over multiple substrates with a broad temperature application tolerance. The compressive strength and nominal 2.8 pcf density will provide a sustainable base for protective coatings such as Acrylic and Silicone elastomers specifically designed for roofing exposure.

Product Use

PolyCon 2800 HFO forms an insulation barrier and viable substrate for elastomeric protective coatings while adhering tenaciously to most properly prepared substrates such as built up, modified, metal, plywood and other common roofing materials. Primers may be required in a variety of substrates.

Recommended Product Applications

- TPO
- Metal R-Panel
- Modified Bituman
- Cured Concrete
- EPDM
- BUR
- Plywood
- PVC

Recommended Processing Parameters

	PC 2800 HFO Regular / Summer
Mix Chamber	minimum of 01
Transfer Pumps	2:1 , 3:1
Ambient / Substrate Temp	50 - 120°F / -10 - 49°C
Equipment Dynamic Pressure	1,100 - 1,500 psi
Preheat Temperature	110 - 130°F / 43 - 55°C

Optimum hose pressure and temperature may vary as a function of the type of equipment, ambient and substrate conditions, and the specific application. It is the responsibility of the applicator to properly interpret equipment technical literature, particularly information that relates to acceptable combinations of gun chamber size, proportioner output, and material pressures.

- CAUTION: Extreme care must be taken when removing and reinstalling drum transfer pumps so as NOT to reverse the "A" and "B" components
- Do not recirculate or mix other suppliers' "A" or "B" component into PC 2800 HFO containers
- The plural component proportioner must be capable of supplying a 1:1 ration by volume

Physical Properties

Properties	Test Method / Requirements	Value
Initial Aged R-Value	ASTM C518	6.9 per inch
Compressive Strength	ASTM D1621	> 40 psi
Core Density	ASTM D1622	2.8 lbs./ft^2
Closed-Cell Content	ASTM D2856	>95%
Water Absorption	ASTM D2842	.07 lbs./ft^2
Tensile Strength	ASTM D-1623	60
Water Vapor Transmission @ 74°F, perm inch	ASTM E96	1.1
Dimensional Stability: 28 days at 158°F, 98% RH	ASTM D2126	<5%
Flame Spread (FSI)	ASTM Method E84	≤75

*THESE VALUES REFER TO THE TOTAL THICKNESS OF THE PRODUCT TESTED, NOT THE MAXIMUM THICKNESS ALLOWED PER PASS OR APPLICATION. THE FOAM SHOULD BE ALLOWED TO COOL FOR 20 TO 30 MINUTES OR UNTIL THE SURFACE HAS RETURNED TO AMBIENT TEMPERATURE BEFORE ADDITIONAL APPLICATIONS OF FOAM ARE ATTEMPTED. FOAM APPLIED IN EXCESS OF 3.5 INCHES OR WITHOUT ALLOWING FOR COOLING MAY RESULT IN, BUT IS NOT LIMITED TO EXCESS HEAT BUILD-UP AND RESULT IN FIRE OR THE GENERATION OF OFFENSIVE ODORS THAT MAY NOT DISSIPATE WITH TIME.

Recommended Storage

	PC 2800 HFO Regular / Summer
Drum Temperature	65 - 85°F / 18 - 29°C
Storage Temperature *No Sun Exposure*	65- 85°F / 18 - 29°C

Material Shelf Life

Six (6) months when stored properly

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Elastomeric Protective Coatings

The polyurethane roofing foam is not UV stable and requires an elastomeric protective coating. The protective coatings used should be the PolyCon PCS 3000 Silicone or the PolyCon PCA 1500HT Acrylic Coating. The PCS 3000 Series is chemical resistant to most common exposures, is resistant to ponded water and provides exceptional elongation especially in colder climates. The PCA 1500HT Series is an economical alternative, providing high tensile strength and available in a variety of colors.

Both products provide ease of application and renewability with proper surface preparation and recoating, ensuring significant long-term value.

Handling and Safety

Respiratory protection is Mandatory!

All precautions should be taken to avoid occupational exposure as well as protecting the working area to avoid unintended exposure by others. Supplied air and a NIOSH approved full face mask respirator must be used during the application as well as chemical safety goggles, protective, non-absorbent gloves and Tyvek suit properly secured around wrists to avoid any and all skin exposure.

Positive pressure ventilation of the work area is recommended to minimize the accumulation of vapors in the work area during the application. Improper application techniques of this foam system must be avoided. Any interior area, even with proper ventilation, should be considered a Confined Space and be treated with utmost precaution. Atomized vapors should not exceed TLV .02 parts per million of isocyanates. Avoid breathing vapors. Persons with known sensitivities or allergies should avoid exposure completely. If inhalation occurs, remove person from contaminated area and administer oxygen if having difficulty breathing. Call a physician immediately. Avoid contact with skin, eyes and clothing.

Open containers carefully, allowing any pressure in the container to be relieved safely. Any contact with material should be washed thoroughly with soap and water. Wash clothes before reuse.

Applicators should ensure the safety of the jobsite and construction personnel by posting appropriate signs warning all adjacent workers and trades to avoid the area. Ensure warning signs are visibly posted at job site that welding, soldering and torch cutting should take place no less than 45 feet from exposed in situ cured foam. If work must be performed, the polyurethane foam should be properly covered with an appropriate fire or welders blanket and fire watch should be provided.

A protection program developed by the Center for Polyurethanes Industry (CPI) is available for download at www.polyurethane.org. Spray Polyurethane Foam Alliance (SPFA) also provides significant safety resources at www.sprayfoam.org, or can be reached directly at 571-748-5003.

In Case of Spills or Leaks

- Utilize appropriate personal protective equipment (PPE)
- Contain and cover spilled materials with loose, absorbent material such as Oil-Dry, Vermiculite, sawdust or Fuller's Earth
- Shovel absorbent waste material into proper waste containers
- Wash the contaminated area thoroughly with hot and soapy water
- Ventilate area to remove vapor
- Report sizable spills to proper environmental agencies

Jobsite Hazards

The potential results of improperly applied materials may include but not limited to excessive heat build-up which could result in a fire or offensive odors which may not dissipate over time and / or poor product performance due to improper density of the applied material.

This includes excessive thickness beyond recommended application passes, off ratio material, and spraying into rising foam. Large masses of sprayed materials should be avoided. If large masses are generated they should be removed from the area, cut into small pieces, wetted down and allowed to cool before disposal. Failure to follow this recommendation may result in a fire. It is recommended that a fire extinguisher be located in the work area to ensure easy access.

In case of Fire Extinguishing Media

Use dry chemical extinguishers such as mono Ammonium phosphate, potassium sulphate and potassium chloride. Additionally, use carbon dioxide, high expansion chemical foam or water spray for large fires.