



## AMBI-ROOF 2.8 (HFO)

SPF ROOFING FOAM SYSTEM

AMBI-ROOF 2.8 (HFO) Product Data Sheet  
Revised 08/29/2024

### DESCRIPTION

**AMBI-ROOF 2.8 (HFO)** is a rigid polyurethane spray foam insulation. The controlled chemical reaction allows for smoother surface and more uniform application over a wide temperature range.

**AMBI-ROOF 2.8 (HFO)** uses zero ozone depleting potential (ODP) blowing agents.

**AMBI-ROOF 2.8 (HFO)** shows excellent adhesion to a wide range of substrates typically found in roofs.

### PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	RESULTS
Density	ASTM D1622	2.8 - 3.0 lbs /ft <sup>3</sup>
Thermal Resistance @ 1 inch	ASTM C518	6.9
Compressive Strength	ASTM 1623	>40 - 45 psi
Open Cell Content	ASTM 6226	<10%
Dimensional Stability (Aging 7 days)	ASTM 2126	<10%
Water Vapor Permeance	ASTM E96 Procedure A	Class II Vapor Retarder In accordance with IBC @ 1 inch 0.94 Perms

### LIQUID COMPONENT PROPERTIES

PROPERTY	AMBIT PMDI-ISO ISOCYANATE (A-COMPONENT)	AMBI-ROOF 2.8 (HFO) RESIN (B-COMPONENT)
Color	Dark Brown	Transparent Yellow
Viscosity @ 75 °F	150 - 250 cps	300 - 450 cps
Specific Gravity	1.22 - 1.24	1.11 - 1.15
Storage Temperature	65 - 110 °F	55 - 70 °F
Shelf Life	One year (12 months)	Six months (6 months)
Volumetric Mixing Ratio	100:100	100:100

### REACTION-TO-FIRE

PROPERTY	TEST METHOD	PRELIMINARY VALUE
Surface Burning Characteristics	ASTM E84	Flame Spread < 75

*The flammability rating stated in this document is not intended to reflect hazards under actual fire conditions. These ratings are used solely to measure and describe the product's response to heat and flame under controlled laboratory conditions.*

### RECOMMENDED PROCESSING PARAMETERS

	SUMMER BLEND	WINTER BLEND
Primary A-Side Heater	108 - 115 °F	108 - 120 °F
Primary B-Side Heater	108 - 115 °F	108 - 120 °F
Hose Temperature	108 - 115 °F	108 - 120 °F
Processing Pressure	900-1200 psi	900-1200 psi
Minimum Application Temperature	>85 °F	>50 °F
Ambient Humidity	<85%	<85%
Maximum Moisture of Wood Substrate	19%	19%

This product should only be applied by trained applicators using 1:1 by volume proportioning equipment capable of maintaining the pressures and temperatures as recommended by AMBIT Polyurethane. Like all isocyanate based foams, the chemical reaction varies significantly due to the equipment, environmental conditions, and applicator technique. Applicators should monitor the chemical temperature, pressures and the rate of rising foam to obtain the best yield for optimum performance.

Prior to spraying, maintain the chemical temperature inside the drums at 70 - 80 °F. Air or mechanical purge guns can be used with this chemical system.

- Protect from sunlight.
- Substrate should be free from oils, grease, frost, water or materials which could affect the adhesion.

## Recommendations:

**AMBI-ROOF 2.8 (HFO)** is designed for an application rate of ½ inch minimum to 1½ inch maximum per pass. Once installed and material has cooled it is possible to add additional applications in order to increase the overall installed thickness of SPF. This application procedure is in compliance with the Spray Polyurethane Foam Alliance (SPFA).

**AMBI-ROOF 2.8 (HFO)** is NOT designed for use as an INTERIOR insulation system. AMBIT products for interior insulation applications, please contact your sales representative.

Cold-storage structures such as coolers and freezers demand special design considerations with regard to thermal insulation and moisture-vapor drive. **AMBI-ROOF 2.8 (HFO)** should NOT be installed in these types of constructions unless the structure was designed by a design professional for specific use as cold storage.

**AMBI-ROOF 2.8 (HFO)** is designed for installation to most standard construction materials such as wood, wood-based products, plastics, metal and concrete. **AMBI-ROOF 2.8 (HFO)** has performed successfully when sprayed onto wood substrates down to 50°F using special cold weather application techniques. For heat sink materials such as metal or concrete, **AMBI-ROOF 2.8 (HFO)** can be sprayed onto substrates down to 60°F, using a flash pass method. AMBIT recommends the use of mock-ups or sample spray before starting the full-scale project. This will provide an opportunity to see how all materials are installed and evaluate their properties prior to proceeding. Please consult a AMBIT Representative for further information about applications using our liquid compounds.

**Important Material Preparation Note:** Product should be stored at 60°F - 80°F. Materials should be prepared for processing by being warmed to 70°F minimum at least 24 hours prior to installation and maintained at 70°F during the install process.

## FIRE SAFETY

The combination of the A & B components create a chemical reaction that produces heat. Applicators should limit the application of this product to no more than a thickness of ½-1½" per pass (after expansion) to avoid a fire hazard (including spontaneous combustion) resulting from excessive heat generation. If subsequent passes are needed, applicators should wait until the core temperature of the foam has dropped below 100°F to allow any reaction heat to dissipate from the prior applications before attempting to reapply the product. The polyurethane foam produced from this resin is combustible. Do not expose to open flame, welding torches, sparks, etc. Keep the foam at least 3 inches (76 mm) away from heat producing sources. No smoking during product application.

## RESPIRATORY PROTECTION

AMBIT Polyurethane requires a full-face mask with supplied air be used during the application of our spray foam systems. A copy of the Model Respiratory Protection Program developed by CPI can be obtained from AMBIT or by visiting [www.polyurethane.org](http://www.polyurethane.org). Read the Safety Data Sheet (SDS) for additional information on safe use and handling.

## SPILLS AND LEAKS

- Ventilate area to remove vapors and use personal protective equipment.
- Contain and cover spilled material with absorbent materials.
- Report spills more than 5,000 lbs. to environmental agencies.
- Wash the contaminated areas thoroughly.



## MANUFACTURED BY

### AMBIT POLYURETHANE LLC

2925 Galleria Drive • Arlington, TX 76011  
(817) 677-1200 • [Info@AmbitPU.com](mailto:Info@AmbitPU.com)

## DISCLAIMER:

To the best of our knowledge, all technical data contained herein is true and accurate as of the date of issuance and subject to change without prior notice. User must contact AMBIT Polyurethane to verify correctness before specifying or ordering. We guarantee our products to conform to the quality control standards established by AMBIT Polyurethane. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of the product. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY AMBIT POLYURETHANE EXPRESSED OR IMPLIED; STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. ALL PATENT RIGHTS ARE RESERVED.