



EProfill is a high yield, two component, open-cell spray polyurethane foam (ocSPF) light-density insulation system that does not require mixing or agitation of the resin prior to application. Profill uses water as the sole blowing agent and is a unique ocSPF insulation. It employs a proprietary formula that ensures adhesion to substrates and to itself. It is the optimal insulation for residential, industrial, and commercial applications.

Application Information

Profill should be processed through commercially available spray equipment designed for that purpose by an approved applicator. Apply ocSPF insulation only when surfaces and ambient temperatures are within manufacturers' prescribed limits. Ambient humidity should be below 80% and substrate temperatures must be more than 5°F above dew point to avoid condensation risks.

Substrate temperature for Standard Grade: 40-120°F.

Fire Test Data

Attribute	Test	Results
Flame Spread	ASTM E84	Class I < 20
Smoke Development	ASTM E84	Class I < 400
Ignition Barrier	NFPA 286 Appendix X	4 WFT - 3 DFT DC315
Thermal Barrier	NFPA 286	15 min - 20 mils WFT DC 315
Unvented Attics	No Ignition Barrier in Certain Unvented Attic Assemblies	

Thermal Resistance

Thickness (inch)	R-Value (°F·ft²·h/Btu) ⁱ
1.0	4.2
2.0	7.6
3.5	13
4.0	15
6.0	22

Thermal Barrier

DC315 as manufactured by International Fireproof Technology Application Rate:
20 Wet Mils - 13 Dry Mils

Approvals and Certifications

- IAPMO UES #856



Recommended Applications

Profill is a low viscosity, 0.5 pcf density open cell insulating material that is designed to provide significant control of air infiltration, as well as a high R-value per inch. When properly installed by an approved applicator, Profill quickly expands to fill the cracks, crevices, gaps, and voids that exist in every structure.

Equipment and Component Ratios

The mix ratio is 1 to 1 by volume. Pre-heater temperatures should be set between 105°F -140°F and able to maintain +/-5°F.

Vapor Retarder

Open cell foam insulation is vapor permeable and will allow some diffusion of moisture through the product. Consult local building code officials for specific requirements. Climate zone tables are available in current IBC, IECC, and IRC publications.

Physical Properties

Attribute	Test	Results
R-Value	ASTM C518	4.2 @ 1"
Density	ASTM D1622	0.5 lb/ft³
Dimensional Stability	ASTM D2126	<5%
Tensile Strength	ASTM D1623	5.19 psi
Air Permeance @ 3.5"	ASTM E283	<0.02 L/s-m²
Water Vapor Transmission	ASTM E96	21 perm @ 1"
Open Cell Content	ASTM D6226	>97%
Sound Transmission Coefficient	ASTM E90	42
Noise Reduction Coefficient	ASTM C423	0.1
Re-Entry - Worker	ASTM D8445	1-Hour @10ACH
Re-Occupancy		2-Hours @10ACH

Ignition Barrier¹

Profill meets the requirements of AC377 and Appendix X for use in attics and crawlspaces when covered with an approved intumescent coating.

1 Ignition Barrier

Profill may be used in attics and crawlspaces without a prescriptive ignition barrier when covered with an intumescent coating under the following conditions: Entry is only to service utilities in the attic or crawlspace and no storage is permitted; attic and/or crawlspaces cannot be interconnected.

Other requirements: IBC 1203.2; 1203.3; IRC R408.1; R806; IMC 701; 703

Processing Parameters

Pressures (dynamic):	1000-1500psi
Preheat Temperature:	A and B, 105-140°F
Hose Temperature: Drum	105-140°F
Temperature in Use:	70-90°F
Surface Temperature:	40-120°F

The ratio of resin to ISO is 1:1 by volume. Profill products should be processed through commercially available equipment designed for spray polyurethane foam. The recommended spray gun is the Graco Fusion AP/CS gun equipped with an AR 4242/AR 4747 chamber. The use of larger gun chambers may result in reduced yield and decreased physical properties.

Liquid Component Characteristics

Mix Ratio by Vol: 1:1 of A:B

Component A: 150-250 cps @ 77°F (Viscosity)
1.24kg/L sg @ 77°F (Specific Gravity)

Component B: 150-250 cps @77°F (Viscosity)
1.15 kg/L sg @ 77°F (Specific Gravity)

Storage Recommendation

All Profill products are factory sealed and should remain sealed until they are ready to be used. Keep drums closed during storage and out of a humid environment.

Keep drums out of direct sunlight. To ensure proper longevity of the products, drums should be stored indoors within the temperature ranges referenced below. Please see chart below for shelf life and proper storage temperatures of Profill:

Shelf Life	Profill Part B Resin – 6 months	Profill Part A - 12 months
Storage Temp Rec	50-80°F	50-80°F

Precautions

Like many construction materials, spray polyurethane foam is a combustible product. Therefore, installers and occupants are to take precautions and safety measures to ensure the foam does not come into contact (within 3") of any devices that have a surface temperature exceeding 180°F. Once application is completed, foam shall be protected with a thermal barrier in accordance with the local building code requirements for a suitable thermal barrier (e.g. drywall).

Adhesion

Substrates must be free of grease, oil, dirt, and surface moisture. Moisture content of porous materials must be below 19% before application of foam.

Manufacturer can be contacted for material compatibility, surface preparation techniques and adhesion on commonly encountered construction materials.

It is up to the builder or designer to determine the suitability of the material for any project. The installer must verify the compatibility of the product at the time of application due to the variability of weather conditions, material suppliers and site conditions which may impact the performance of the product.

Health and Safety Handling

When spraying or handling Profill and resin the following protective steps and equipment are recommended:

Protective Equipment

- Fabric coverall (non-porous)
- Nitrile gloves
- Protective eyewear
- Supplied full face fresh air respirator (while spraying)
- Use personal protective equipment (see SDS)

Exposure

- Avoid all contact with skin
- Avoid all contact with eyes
- Do not ingest
- Do not inhale vapors

In case of exposure, please refer to the SDS for first-aid measures.

Spills

In case of spills, contain and collect spillage with a non-combustible absorbent material, such as: sand, earth, clay-based oil absorbent (kitty-litter), etc.

Technical Assistance

For additional assistance please contact the Technical Services Department of Profoam at 706-557-1400.

Disclaimer

Technical information as shown in this document is intended to be used as general guidelines only. Please refer to the Safety Data Sheet and product label prior to using this product.

LIMITED WARRANTY INFORMATION: The information herein is to assist customers in determining whether our products are suitable for their applications. Our products are only intended for sale to industrial and commercial customers. Customer assumes full responsibility for quality control, testing and determination of suitability of products for its intended application or use. We warrant that our products will meet our written liquid component specifications. We make no other warranty of any kind, either express or implied, by fact or law, including any warranty of merchantability or fitness for a particular purpose. Our total liability and customers' exclusive remedy for all proven claims is replacement of nonconforming product and in no event shall we be liable for any other damages.



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