

# Versico EPS Flute Fill



## Overview

Versico's flute fill is a custom-made, engineered insulation consisting of a superior closed-cell, lightweight expanded polystyrene (EPS). Versico flute fill is manufactured to meet or exceed the requirements of ASTM C578 Standard Specification for rigid, cellular polystyrene thermal insulation. Versico flute fill can be manufactured in a range of sizes, densities, thicknesses and profiles to meet any job-specific needs.

## Features and Benefits

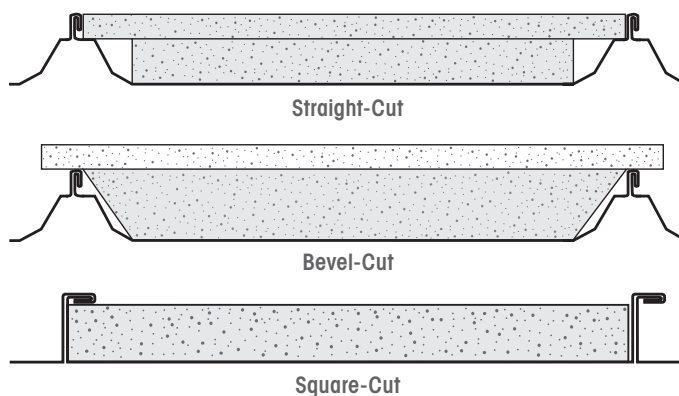
- Lightweight and easy to handle and install
- Contains up to 25% recycled material
- 100% recyclable foam core

## Product Characteristics

- Standard density: 1.0# EPS
- Compressive Strength: Minimum 10 psi
- R-Value: 3.85R per inch

## Codes and Compliances

- Manufactured in accordance with ASTM C578
- UL Standard 790 & 1256: Component of Class A Roof Systems (refer to UL Roof Materials' system directory)



## Applications

Versico flute fill is specifically manufactured for use as a component in a recover roof system over existing standing seam metal roof systems. Available in taper-cut or square-cut, EPS Flute fill is installed within the flutes of a standing seam metal roof.

## Installation Considerations

1. Install only as much insulation as can be covered by a roof membrane system, and/or made watertight by the end of each day.
2. EPS flute fill should not be exposed directly to solvent- or petroleum-based adhesives and sealants.
3. Utilize code approval tables below for designing with EPS flute fill.

## Typical Properties and Characteristics

| Physical Property                                                    | Type I  | Test Method |
|----------------------------------------------------------------------|---------|-------------|
| Nominal Density (pcf)                                                | 1       | ASTM C303   |
| C-Value (Conductance) - per inch BTU/(hr•ft <sup>2</sup> •°F)        | 0.26    | ASTM C518   |
| R-Value (Thermal Resistance) - per inch (hr•ft <sup>2</sup> •°F)/BTU | 3.85    | ASTM C518   |
| Compressive Strength (psi, 10% deformation)                          | 10-14   | ASTM D1621  |
| Flexural Strength (min. psi)                                         | 25      | ASTM C203   |
| Dimensional Stability (maximum %)                                    | 2.0     | ASTM D2126  |
| Water Vapor Permeance (max. perm., 1 inch)                           | 5.0     | ASTM E96    |
| Water Absorption (max. % vol.)                                       | 4.0     | ASTM C272   |
| Capillarity                                                          | None    | —           |
| Flame Spread                                                         | < 20    | ASTM E84    |
| Smoke Developed                                                      | 150-300 | ASTM E84    |

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

# Versico EPS Flute Fill

## Code Approval Tables

### Mechanically-Fastened Membranes

#### TPO Metal Retrofit with EPS Flute-Fill

|             | System 1                          | System 2                | System 3          | System 4          |
|-------------|-----------------------------------|-------------------------|-------------------|-------------------|
| Deck        | Metal Roof                        | Metal Roof              | Metal Roof        | Metal Roof        |
| Flute-Fill  | Type I EPS (1 lb)                 | Type I EPS (1 lb)       | Type I EPS (1 lb) | Type I EPS (1 lb) |
| Cover Board | min. 1" SecurShield/<br>VersiCore | ½" SecurShield<br>HD    | min. ¼" gypsum    | min. ¼" gypsum    |
| TPO         | 45 mil, 60 mil, 80 mil            | 45 mil, 60 mil, 80 mil  | 45 mil, 60 mil    | 80 mil            |
| Slope       | ½" max.<br>(HS-1" max.)           | ½" max.<br>(HS-1" max.) | 3" max.           | 2.5" max.         |

1. HS = High Slope TPO

#### PVC Metal Retrofit with EPS Flute-Fill

|             | System 1                          | System 2               | System 3               |
|-------------|-----------------------------------|------------------------|------------------------|
| Deck        | Metal Roof                        | Metal Roof             | Metal Roof             |
| Flute-Fill  | Type I EPS (1 lb)                 | Type I EPS (1 lb)      | Type I EPS (1 lb)      |
| Cover Board | min. 1" SecurShield/<br>VersiCore | ½" SecurShield<br>HD   | min. ¼" gypsum         |
| PVC         | 50 mil, 60 mil, 80 mil            | 50 mil, 60 mil, 80 mil | 50 mil, 60 mil, 80 mil |
| Slope       | 1" max.                           | 1" max.                | Unlimited              |

#### EPDM Metal Retrofit with EPS Flute-Fill

|             | System 1                          | System 2               | System 3               |
|-------------|-----------------------------------|------------------------|------------------------|
| Deck        | Metal Roof                        | Metal Roof             | Metal Roof             |
| Flute-Fill  | Type I EPS (1 lb)                 | Type I EPS (1 lb)      | Type I EPS (1 lb)      |
| Cover Board | min. 1" SecurShield/<br>VersiCore | ½" SecurShield<br>HD   | min. ¼" gypsum         |
| Reinforced  | 45 mil, 60 mil, 75 mil            | 45 mil, 60 mil, 75 mil | 45 mil, 60 mil, 75 mil |
| Slope       | ½" max.                           | ½" max.                | 3" max.                |

### Adhered Membranes

#### TPO Metal Retrofit with EPS Flute-Fill

|             | System 1                          | System 2                  | System 3                    | System 4                      |
|-------------|-----------------------------------|---------------------------|-----------------------------|-------------------------------|
| Deck        | Metal Roof                        | Metal Roof                | Metal Roof                  | Metal Roof                    |
| Flute-Fill  | Type I EPS (1 lb)                 | Type I EPS (1 lb)         | Type I EPS (1 lb)           | Type I EPS (1 lb)             |
| Cover Board | min. 1" SecurShield/<br>VersiCore | ½" SecurShield<br>HD      | min. ¼" gypsum              | min. ¼" gypsum                |
| TPO         | 45 mil, 60 mil, 80 mil            | 45 mil, 60 mil, 80 mil    | 45 mil, 60 mil              | 80 mil                        |
| Slope       | ¼" max.<br>(HS - ½" max.)         | ¼" max.<br>(HS - ½" max.) | 3" max.<br>(HS - unlimited) | max. 2.5"<br>(HS - unlimited) |

1. HS = High Slope TPO

#### PVC Metal Retrofit with EPS Flute-Fill

|             | System 1                          | System 2               | System 3               |
|-------------|-----------------------------------|------------------------|------------------------|
| Deck        | Metal Roof                        | Metal Roof             | Metal Roof             |
| Flute-Fill  | Type I EPS (1 lb)                 | Type I EPS (1 lb)      | Type I EPS (1 lb)      |
| Cover Board | min. 1" SecurShield/<br>VersiCore | ½" SecurShield<br>HD   | min. ¼" gypsum         |
| PVC         | 50 mil, 60 mil, 80 mil            | 50 mil, 60 mil, 80 mil | 50 mil, 60 mil, 80 mil |
| Slope       | 1" max.                           | 1" max.                | Unlimited              |

#### EPDM Metal Retrofit with EPS Flute-Fill

|                | System 1                          | System 2               | System 3               |
|----------------|-----------------------------------|------------------------|------------------------|
| Deck           | Metal Roof                        | Metal Roof             | Metal Roof             |
| Flute-Fill     | Type I EPS (1 lb)                 | Type I EPS (1 lb)      | Type I EPS (1 lb)      |
| Cover Board    | min. 1" SecurShield/<br>VersiCore | ½" SecurShield<br>HD   | min. ¼" gypsum         |
| Non-Reinforced | 45 mil, 60 mil, 90 mil            | 45 mil, 60 mil, 90 mil | 45 mil, 60 mil, 90 mil |
| Slope          | ½" max.                           | ½" max.                | Unlimited              |



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