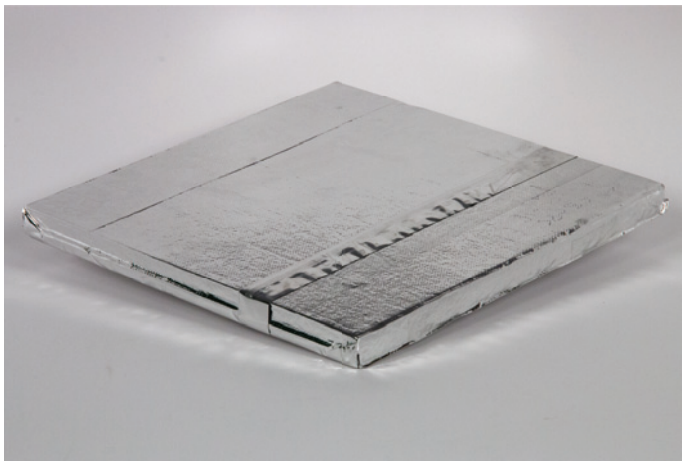
OPTIM-R® Vacuum Insulated Panel (VIP)



Overview

Versico's OPTIM-R is a high R-value vacuum insulated panel (VIP) insulating solution. OPTIM-R provides a low-profile solution when height restrictions will not allow for the code-required or building-owner desired roof insulation values. OPTIM-R is truly a next-generation insulation, providing an R-value that is up to five times the R-value of commonly used insulation products.

Features and Benefits

- Provides an R-38 insulating value in a 2.6" system thickness with up to 35% infill (non-VIP material)
- An ideal solution for adding R-value where height restrictions exist (e.g. penthouse doors opening onto rooftop, windows near roof line, through-wall scuppers, equipment curbs needing to be raised, parapet wall modifications, etc.)
- OPTIM-R design layout provided from roof drawings
- Up to five times the insulating value of traditional insulation materials
- Over 90% (by weight) recyclable

Panel Characteristics

- 1.6" (40 mm) thickness
- 1.64 lbs per square foot

Size (inches)	Size (mm)	Weight (lbs)
23.6 x 23.6	600 x 600	6.3
23.6 x 47.2	600 x 1200	12.7

System Design

Versico's ½" SecurShield® HD panels must be installed above and below the OPTIM-R panels. The base layer of SecurShield HD may be adhered or mechanically fastened to the roof deck; with additional layers of insulation adhered using Versico's Flexible DASH Adhesive.

Limitations

- OPTIM-R panels cannot be mechanically attached
- OPTIM-R panels cannot be cut or punctured

Installation

An accurate roof drawing is required to start a project; an OPTIM-R design drawing will then be developed showing the rooftop layout of the OPTIM-R panels and panel piece count for quoting purposes. Versico's ½" SecurShield HD shall be installed directly to the deck using the appropriate plates and fasteners or Versico's Flexible DASH™ Adhesive. The OPTIM-R shall be adhered directly above the ½" SecurShield HD base layer using Versico's Flexible DASH Adhesive. Versico infill polyiso shall be installed around penetrations, curbs, and parapets where OPTIM-R cannot be installed and will be indicated on the design drawing. A top layer of ½" SecurShield HD shall be adhered to the OPTIM-R using Flexible DASH Adhesive. Butt edges and stagger joints of all adjacent insulation panels. Install the roof covering and membrane according to Versico's specifications.

REVIEW CURRENT VERSICO SPECIFICATIONS AND DETAILS FOR SPECIFIC INSTALLATION REQUIREMENTS.

VERSICO
ROOFING SYSTEMS

OPTIM-R Vacuum Insulated Panel (VIP)

Codes and Compliances

- UL Standard 790, 263, and 1256: Component of Class A Roof Systems (refer to UL Roof Materials' system directory)
- ASTM C1484 certified (Standard Specification for Vacuum Insulation Panels)
- R-values tested according to ASTM C1667

Typical Properties and Characteristics

Density	11.25 pcf
Compressive Strength	25 psi (ASTM C165)
Service Temperature	-40°F to 176°F (-40°C to 80°C)
Recyclability	90% (by weight)

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.

Foamed plastic as roof deck construction material with resistance to an internal fire exposure only for use in construction no.(s) 120 and 123. See UL Directory of Products Certified for Canada and UL Roofing Materials and Systems Directory. 99DL.

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