

## **Carlisle's Next-Generation Insulation Solution**

As the industry leader in warranted commercial roofing systems, Carlisle SynTec Systems takes pride in its tradition of providing unique solutions to rooftop challenges. With the introduction of OPTIM-R® insulation, Carlisle continues to shape the evolution of the commercial roofing industry through world-class system solutions.

Carlisle's OPTIM-R is a high-R-value vacuum insulated panel (VIP) insulation 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 product, providing up to five times the R-value of commonly used insulation products.

## OPTIM-R Vacuum Insulated Panel (VIP) A High R-Value Solution

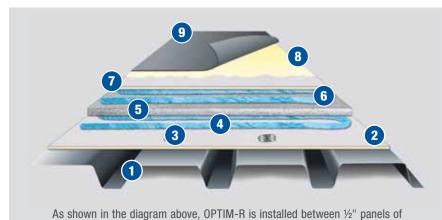
## INCREASED INSULATION REQUIREMENTS AND CHALLENGES

Both building code and building owner requirements are dictating greater amounts of insulation on the roof. But in many re-roofing and recover scenarios, height restrictions make it difficult to accommodate additional insulation. Penthouse doors that open onto the rooftop, windows located near the roof line, through-wall scuppers, equipment curbs needing to be raised, and parapet wall modifications can also present significant challenges. OPTIM-R can save money and time in these situations, especially when the alternative is extensive building modifications.



## SYSTEM DESIGN

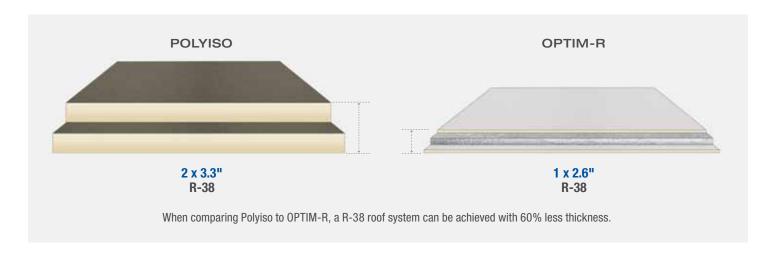
In order to adequately protect the OPTIM-R panels, Carlisle's  $\frac{1}{2}$ " SecurShield® HD insulating cover board must be installed above and below the OPTIM-R. The base layer of SecurShield HD may be adhered or mechanically fastened to the roof deck, with additional layers of insulation adhered using Carlisle's Flexible FAST™ Adhesive.



SecurShield HD Polyiso Insulation for additional protection to avoid puncturing.

- 9 Carlisle-Approved Membrane
- 8 Carlisle-Approved Bonding Adhesive
- 7 ½" SecurShield HD Polyiso Insulation
- 6 Flexible FAST Adhesive
- 5 1.6" OPTIM-R
- 4 Flexible FAST Adhesive
  - 3 Carlisle Insulation Fasteners and Plates
- 2 ½" SecurShield HD Polyiso Insulation
  - 1 Carlisle-Approved Steel/Concrete Deck





An accurate roof drawing will be required to start a project from which 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. Carlisle infill polyiso shall be installed around penetrations, curbs, and parapets where OPTIM-R cannot be installed and will be indicated on the design drawing.

