

**Sure-Weld<sup>®</sup> TPO**  
Roofing Systems



**Sure-Weld<sup>®</sup> TPO Metal Retrofit Systems**

# The Cost-Effective, Long-Term Solution

Metal buildings are often chosen because of their cost-effective design and speed of construction. However, when the metal roof begins to leak and deteriorate, replacements can be very costly. With decades of experience in single-ply roofing, Carlisle SynTec Systems has a wide range of metal retrofit options.

## Why Choose a Sure-Weld TPO Metal Retrofit System?

Carlisle's Sure-Weld TPO can be installed over an existing standing seam metal roof to offer proven, long-lasting protection while increasing the energy efficiency of the building. This solution can be more cost effective than replacing the metal roof while proving to be a much longer-term solution compared to coatings.



Convenience, value, and performance are three critical considerations when it comes to the success of any re-roofing project. A Sure-Weld TPO Metal Retrofit System offers the following features and benefits:

### Convenience:



Installs directly over the existing metal roof eliminating costly and disruptive removal and replacement.



Multiple membrane and insulation options to meet a variety of performance, budget, and efficiency needs.

### Value:



Highly reflective TPO membranes offer additional energy savings.



Improves R-value and energy efficiency of the building while reducing noise for occupants.

### Performance:



TPO's proven history of long-term performance provides a lasting solution compared to coatings and spray-applied restoration products.



Backed by Carlisle's industry-leading Total System Warranty for up to 20 years, with optional hail, puncture and reflectivity warranties available upon request.

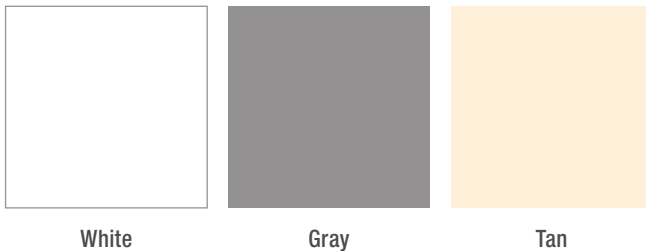
## MEMBRANE OPTIONS

Sure-Weld TPO membranes use advanced polymerization technology that combines the flexibility of ethylene-propylene (EP) rubber with the heat weldability of polypropylene. All

Sure-Weld TPO membranes include OctaGuard XT™, a blend of industry-leading weathering ingredients to enable Sure-Weld TPO to stand the test of time.

Carlisle's Sure-Weld and Sure-Weld HS TPO membranes are available in highly reflective white, tan, and gray colors, in both 45-mil and 60-mil thicknesses. 80-mil Sure-Weld Extra is also offered in white, gray, and tan colors.

### Sure-Weld TPO Colors In Stock

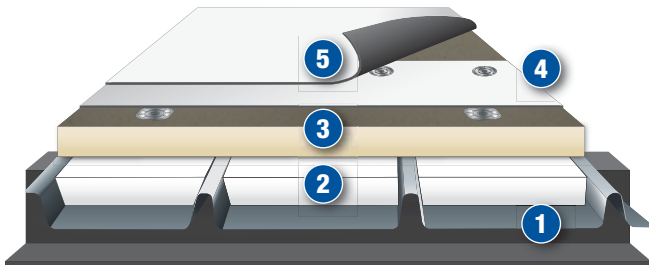


Sure-Weld HS Color TPO membranes are also available in 5 special colors. Additionally, Carlisle offers FleeceBACK® TPO in 100, 115, and 135-mil thicknesses for added puncture resistance and uplift performance.

### Sure-Weld TPO Special Colors



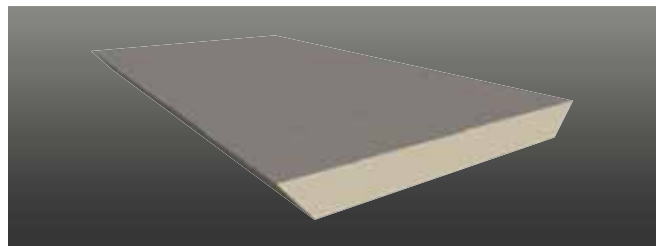
## INSTALLING A TPO METAL RETROFIT SYSTEM



- 1 Existing Standing Seam Metal Roof**
- 2 Flute Fill Insulation:** a key component of a metal retrofit system is the addition of custom-fit insulation between the standing seams of the metal roof panels. Carlisle offers both EPS (expanded polystyrene – shown) and Polyiso flute-fill insulation that can be factory cut to fit between each metal panel. This insulation layer also adds R-value and can be loose-laid or adhered.
- 3 Additional insulation:** once flute-fill has been installed, additional insulation ranging from a ¼-inch cover board to several inches of Polyiso insulation can be installed to create a smooth flat substrate for the membrane. Adding thicker Polyiso insulation and cover boards can add additional R-value to the system. Using a high-compressive strength Polyiso cover board or gypsum cover board can also enhance impact resistance and fire resistance.



EPS Flute Fill

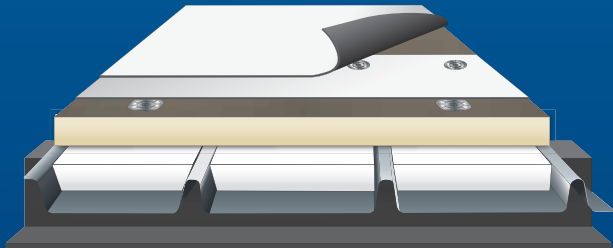


Polyiso Flute Fill

- 4 Attachment:** the Sure-Weld TPO membrane can be mechanically attached using fasteners and plates, attached using induction welding plates, or fully adhered using a TPO bonding adhesive. See the back cover for more information on each attachment method.
- 5 Sure-Weld TPO Membrane:** the adjoining TPO membrane sheets are hot-air welded together using an approved hot-air welder.

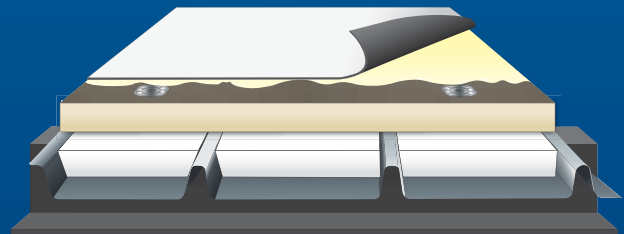
## EXPERIENCE THE CARLISLE DIFFERENCE

### SYSTEM TYPES



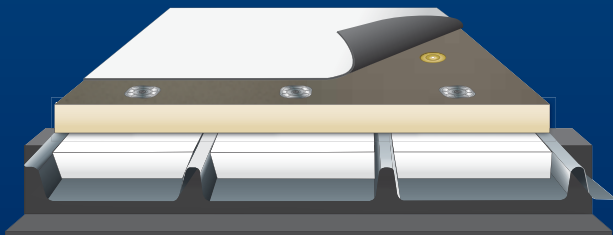
#### Mechanically Attached

- » Membrane is loose laid and attached to structural purlins using plates and fasteners
- » Low installed cost with moderate wind uplift performance
- » No fumes or odors from adhesives



#### Fully Adhered

- » Insulation is attached using fasteners and plates. Membrane is adhered using TPO bonding adhesive or CAV-GRIP® III Adhesive
- » Excellent wind uplift performance and appearance
- » Allows for the use of membrane sheets up to 12' wide for fewer seams



#### Induction Welded

- » Specially coated plates are fastened to structural purlins and bonded to the membrane using an induction welding tool to secure the membrane
- » Similar installed cost and performance to a mechanically attached system
- » Allows for the use of membrane sheets up to 12' wide for fewer seams



#### Non-Penetrating FleeceBACK Application

- » Insulation and FleeceBACK TPO membrane installed using Flexible FAST™ urethane adhesive
- » Non-penetrating design and low odor Flexible FAST adhesive provide minimal disruption and noise to occupants during installation
- » Superior wind uplift performance
- » Highly resistant to impacts and punctures with additional hail, cut, and puncture warranty coverage available



800-479-6832 | P.O. Box 7000 | Carlisle, PA 17013 | Fax: 717-245-7053 | [www.carlisesyntec.com](http://www.carlisesyntec.com)