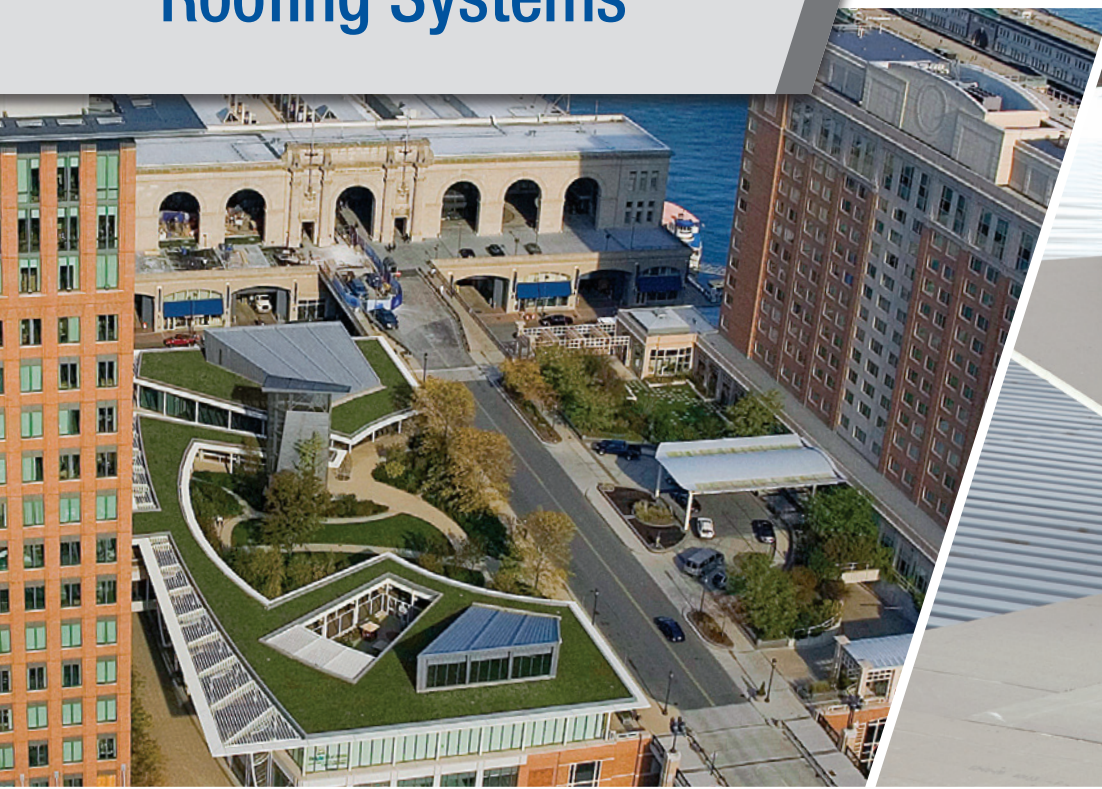




Roofing Systems



Contents

Setting the Standard for Excellence

Carlisle SynTec Systems, the flagship division of Carlisle Construction Materials (CCM), is the largest supplier of commercial roofing products in the world.

Carlisle produces high-performance EPDM, TPO, PVC, and FleeceBACK® single-ply roofing membranes, a full line of polyiso and expanded polystyrene insulation, and a wide variety of solvent-based and low-VOC adhesives.

With more than 55 years of manufacturing experience and billions of square feet of roofing materials sold, Carlisle continues to lead the industry by providing the best products, services, and warranty options available today.

Experience the Carlisle Difference	2-3
Single-Ply Systems & Attachment Options	4-5
EPDM Roofing Systems	6-7
TPO Roofing Systems	8-9
PVC Roofing Systems	10-11
FleeceBACK Roofing Systems	12-13
Insulation Products	14-15
Air & Vapor Barriers	16-17
SecurEdge™ Perimeter Roof Edge Systems	18-19
Skylights & Accessories	20-21
Roof Garden Roofing Systems	22-23
Paver Systems	24-25
Innovative Products	26-27
Productivity Boosting Products	28-29

Experience the Carlisle Difference

First-class products | Focused on quality | Unmatched customer service
 Unparalleled technical support | Accurate order entry & timely delivery



INDUSTRY-LEADING MANUFACTURING CAPABILITIES

Carlisle Construction Materials is the only roofing manufacturer to produce all three major roofing membranes – EPDM, TPO, and PVC – and is the world’s largest manufacturer of EPDM, TPO, and polyiso insulation. Carlisle’s more than 60 years of manufacturing experience are reflected in its innovative, durable products, all of which are designed to enhance roof system performance. Today, billions of square feet of warranted Carlisle roof systems protect buildings worldwide.

INNOVATIVE PRODUCT DEVELOPMENT

Carlisle is dedicated to leading the industry in innovation by developing and manufacturing the most progressive and innovative building materials on the market. Every Carlisle product is designed to enhance building performance and contractor efficiency. Carlisle has pioneered productivity-boosting products, such as Factory-Applied Tape™ and Flexible FAST Adhesive™, and has developed true market differentiators, such as FleeceBACK membranes, the OctaGuard XT™ Weathering Package, KEE-enhanced PVC, and APEEL™ Protective Film – reshaping the commercial roofing landscape.

CCM MANUFACTURING CAPACITY

- 3** EPDM Manufacturing Lines
- 5** TPO Manufacturing Lines
- 1** PVC Manufacturing Line
- 9** Polyisocyanurate Manufacturing Lines
- 9** EPS Manufacturing Lines
- 1** Adhesive Manufacturing Line
- 1** Tape Manufacturing Line

DEDICATED TRAINING & EDUCATION

Carlisle employs an in-house training staff dedicated to providing construction professionals with comprehensive training and continuing education opportunities. To further this mission, Carlisle recently opened its Training and Education Center, which is a multi-million-dollar, state-of-the-art training facility.

STRENGTH OF THE BRAND

CCM is a business segment of Carlisle Companies Incorporated, a leading supplier of premium building materials for the roofing, waterproofing, framing, and general construction industries. With a presence in over 50 countries and with 2,000+ employees, CCM provides a wide variety of roofing and waterproofing products, insulation, metal roofing, spray foam insulation, acrylic and silicone roof coatings, air and vapor barriers, duct sealants, equipment, and hardware.

LOCALIZED FIELD SERVICE REPRESENTATIVES

Carlisle employs the industry’s largest network of Field Service Representatives (FSRs) to offer localized project support and applicator training. Carlisle FSRs are proficient in the installation of all Carlisle roofing systems and can assist construction professionals by providing technical support and investigative services. FSRs also perform roof inspections on all warranted jobs and inspect every detail on the roof.

EXTENSIVE ROOF SYSTEM WARRANTY OPTIONS

Carlisle issues approximately 15,000 warranties each year, with terms ranging from five to 30 years in length. Carlisle’s industry-leading warranties offer building owners unparalleled leak coverage, are transferrable, and are available with optional hail, wind, and accidental puncture coverage.

OPTIONAL WARRANTY COVERAGE



QUALITY-FOCUSED AUTHORIZED APPLICATOR NETWORK

Fewer than 10% of all roofing contractors in the United States and Canada qualify to become Carlisle Authorized Applicators, ensuring that only the most skilled contractors are permitted to install Carlisle roof systems.



Scan here to watch a video about Carlisle’s history of innovation.

1961	1976	1987	1993	1997	2002	2007	2009	2010	2013	2014	2016	2018	
Carlisle revolutionized the roofing industry with the installation of the first adhered single-ply membrane on a section of Chicago’s O’Hare International Airport.	Sure-Seal® EPDM’s popularity and demand skyrocketed and developed into a major line for Carlisle.	Carlisle introduced the first polyester-reinforced EPDM membrane, as well as the first white EPDM roofing system.	Sure-Weld® TPO is introduced by Carlisle, making it the company’s first thermoplastic product line.	Carlisle launched its revolutionary FleeceBACK and FAST Adhesive roofing system.	EPDM with Factory-Applied Tape (FAT) was developed, improving seaming productivity by approximately 75%.	Carlisle launched its Sure-Weld TPO with Self-Adhering Technology (SAT™).	Carlisle introduced Sure-Flex™ KEE, a high-performance PVC membrane containing Elvaloy®.	Carlisle introduced SecurShield™ HD cover board, a high-density closed-cell polyisocyanurate insulation with a coated glass facer.	The industry’s only FM-approved air and vapor barrier for direct-to-metal-deck applications – Carlisle’s VapAir Seal™ MD – entered the market.	The grand opening of the Greenville, Illinois PVC manufacturing line is celebrated.	Sure-Weld TPO with APEEL Protective Film was released.	Carlisle introduced FAST Dual Tank Adhesive, a self-contained system for FleeceBACK installations.	Carlisle introduced RapidLock (RL™) Roofing Systems, a membrane hook-and-loop attachment system that provides an adhered system without the use of adhesives.

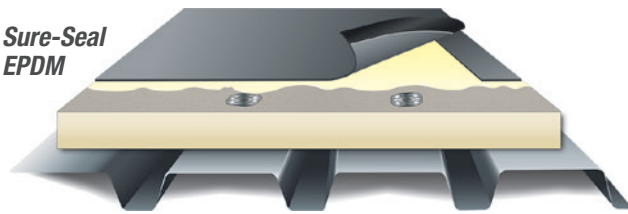
Single-Ply Systems & Attachment Options



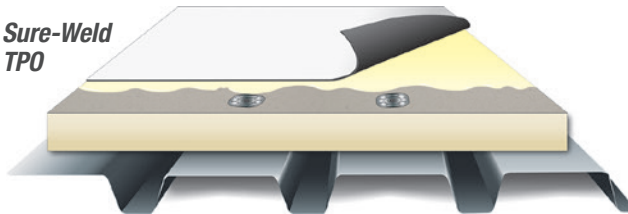
TRADITIONAL ADHERED SYSTEMS

Carlisle's adhered systems offer unparalleled wind uplift protection, making them ideal for high elevations, hurricane-prone areas, and other places where wind is a concern. Carlisle manufactures a variety of membranes for use in adhered systems, including EPDM, TPO, PVC, KEE HP, and FleeceBACK.

Sure-Seal EPDM



Sure-Weld TPO

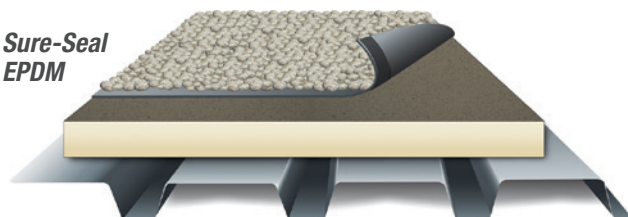


BALLASTED SYSTEMS

Ballasted systems are comprised of loose-laid membrane that is held in place by stone or pavers. Advantages of a ballasted roof system include:

- » Very economical choice for large, wide-open rooftops
- » Excellent hail damage protection
- » Known as the original sustainable roof
- » Ballast helps reduce noise from exterior sources

Sure-Seal EPDM

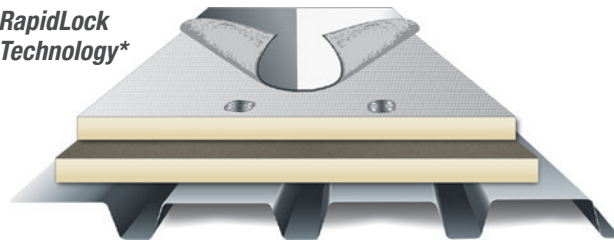


RAPIDLOCK ADHERED SYSTEMS

Carlisle's RapidLock (RL™) systems use a revolutionary membrane attachment method that provides an adhered system with no adhesives. The RapidLock systems use VELCRO® Brand Securable Solutions along with FleeceBACK RL EPDM or FleeceBACK RL TPO to achieve performance that is on par with traditional adhered single-ply systems. Underlayment options include InsulBase® RL and SecurShield HD RL Polyiso. RapidLock systems' features and benefits include:

- » No adhesives, VOCs, or odors
- » Adhesive-less system saves time and labor
- » Easy to install with an adhered slip sheet
- » Excellent resistance to hail and punctures
- » Factory Mutual 1-90 approval rating
- » No application temperature restrictions

RapidLock Technology*

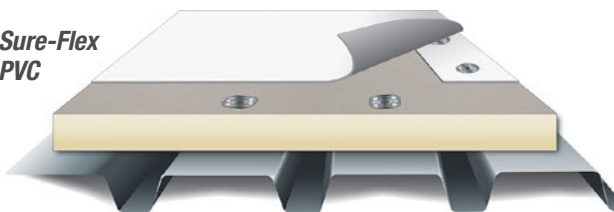


* Artist rendering, please see RapidLock Roofing Systems Product Data Sheet for complete details.

MECHANICALLY FASTENED OPTIONS

Mechanically fastened systems are lightweight, cost-effective, and easy to maintain. Carlisle offers a full line of pre-assembled plates and fasteners that dramatically improve installation speed. Mechanically fastened systems are an ideal choice for areas that experience moderate winds, as they are held in place by the plates and fasteners that are secured through the membrane and into the deck.

Sure-Flex PVC

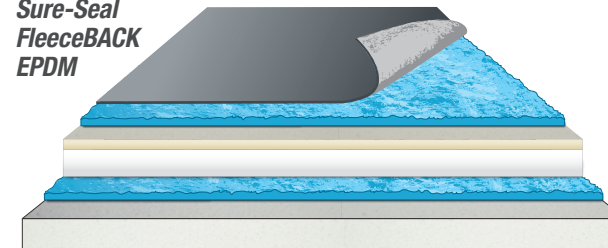


FLEECEBACK ADHERED SYSTEMS

Carlisle's industry-leading FleeceBACK EPDM, TPO, and PVC roofing systems are ideal for buildings that require superior protection and long-term durability. These innovative roofing systems offer the following benefits:

- » Enhanced durability with fleece reinforced sheet
- » Superior wind uplift performance
- » Excellent hail, puncture, and tear resistance
- » Quiet, low-odor installation
- » Lightweight, with fewer seams than modified bitumen

Sure-Seal FleeceBACK EPDM



ADHERED ATTACHMENT OPTIONS

Carlisle offers an extensive line of adhesives for use in adhered systems:

- » Traditional bonding adhesives
- » Low-VOC adhesives
- » Water-based adhesives
- » Two-component urethane adhesives
- » Asphalt-based products

FEATURED PRODUCT CAV-GRIP® III

Carlisle's CAV-GRIP III Low-VOC Adhesive/Primer is an innovative option for adhered systems:

- » Can be used to adhere all FleeceBACK membranes and standard TPO and EPDM membranes to vertical walls
- » Can be used to adhere standard TPO and EPDM membranes to horizontal surfaces
- » Can be used in temperatures as low as 25°F (-4°C)
- » Easy setup and cleanup
- » Low odor and low VOC
- » Up to 60% labor savings compared to installations using traditional bonding adhesive



EPDM Roofing Systems

System Options

With more than 60 years of proven performance, EPDM roofs are defined by their resiliency. Carlisle's Sure-Seal and Sure-White® EPDM roofing systems offer solutions for any commercial building and feature superior resistance to UV weathering and hail damage.

ADVANTAGES OF EPDM ROOFING SYSTEMS



TIME-TESTED

Meeting or exceeding ASTM standards, black EPDM roofs have been used for more than 60 years and white EPDM roofs have been used for more than 35 years.



ENERGY EFFICIENT

Black EPDM helps to reduce heating costs in northern climates and white EPDM aids in reducing cooling costs in southern climates.



ROOFTOP SAFETY

Black EPDM helps to melt frost, dew, and ice, reduces a roof's snow load, and dries more quickly than a light-colored roof.



REDUCES CONDENSATION

Black EPDM helps to reduce the potential for condensation issues.



DURABLE

EPDM provides excellent resistance to weathering and hail damage.



Sure-Seal EPDM

BALLASTED ROOFING SYSTEMS

Sure-Seal EPDM

- » 60 years of proven performance
- » Industry-leading UV resistance, plus added UV protection from the ballast
- » Energy efficient in a variety of climates
- » Low lifecycle costs and excellent hail resistance
- » Reduces noise from exterior sources
- » Aesthetically pleasing and ideal for concrete decks
- » Described as "the original sustainable roof"

ADHERED SYSTEMS

Sure-Seal EPDM

- » 60 years of proven performance
- » Dark-colored EPDM reduces heating costs in colder climates, where they are generally 3-5 times greater than cooling costs
- » Industry-leading UV resistance
- » Full thickness of weathering material, no internal scrim
- » Superior resistance to hail damage
- » Variety of adhesive options

Sure-White EPDM

- » 35 years of proven performance
- » Industry-leading UV resistance
- » Reduces air-conditioning costs in warmer climates
- » Superior resistance to hail damage
- » Variety of adhesive options
- » Full thickness of weathering material, no internal scrim
- » Zero (no growth) rating for fungal growth

EPDM Pressure-Sensitive Accessories
Carlisle's pressure-sensitive accessories save time and money by boosting productivity on the rooftop.



MECHANICALLY FASTENED SYSTEMS

Sure-Tough™ EPDM or Sure-White Reinforced EPDM

- » Dark-colored Sure-Tough EPDM reduces heating costs in colder climates, where they are generally 3–5 times greater than cooling costs
- » Industry-leading UV resistance and slip resistance
- » Reinforced sheets offer added toughness and puncture resistance
- » Ideal for steel and wood decks
- » Less prone to condensation accumulation under black Sure-Tough membrane
- » Quick and economical installation

FEATURED PRODUCT Factory-Applied Tape

Carlisle's Factory-Applied Tape enhances seam performance while providing the fastest and easiest way to create a seam between two single-ply membranes.

- » Patented seam technology
- » Consistent seam quality
- » Significant labor savings – increases seaming productivity by nearly 75%
- » Reliable performance and excellent peel and shear strengths with no entrapped air bubbles



TPO Roofing Systems

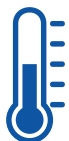
TPO membrane is the fastest-growing segment in the commercial roofing industry, and no manufacturer has more TPO experience than Carlisle. Carlisle's Sure-Weld TPO membranes have an industry-leading thicker and smoother top ply over scrim for enhanced long-term weathering characteristics.

Your building deserves a roofing system provided by the manufacturer that has been at the forefront of TPO research, development, and technology since the inception of TPO as a roofing membrane: Carlisle SynTec Systems.

ADVANTAGES OF SURE-WELD TPO



CLEANER SURFACE



LONG-TERM ENERGY EFFICIENCY IN WARM, SOUTHERN CLIMATES



GREATER WEATHER RESISTANCE



IMPROVED LONG-TERM PERFORMANCE



EXCELLENT HEAT AND UV RESISTANCE

SURE-WELD TPO Roofing System Accessories

- » Square Tubing Wraps
- » Split Pipe Seals
- » Molded Pipe Seals
- » Pressure-Sensitive Coverstrip
- » Pressure-Sensitive RUSS
- » Inside and Outside Corners
- » T-Joint Covers
- » Molded Sealant Pockets
- » Walkway Rolls
- » Yellow Pressure-Sensitive Warning Strip
- » Curb Wrap Corners
- » Universal Corners

CERTIFIED FABRICATED ACCESSORIES

The most critical and time-consuming portion of a TPO roofing installation is made easier and faster with Sure-Weld Certified Fabricated Accessories (CFA). Carlisle accessories are stamped with the CFA logo to signify that all pre-fabricated accessories meet the performance standards Carlisle requires.



Scan here to learn why there is still no equal to Carlisle's TPO.

OCTAGUARD XT

Every square foot of Carlisle TPO includes the industry-leading OctaGuard XT Weathering Package. OctaGuard XT technology is comprised of eight performance-enhancing ingredients, including three heat-stabilizing antioxidants, three UV light stabilizers, and organic and inorganic UV absorbers. When combined, these eight ingredients provide a weathering package that is second to none.



APEEL PROTECTIVE FILM

Carlisle's patented APEEL Protective Film guards the TPO membrane's surface from scuffs and dirt accumulation during installation and eliminates the need to clean the roof once the project is complete. Durable and easy to remove, APEEL Protective Film helps to save time and labor, improve aesthetics, and increase customer satisfaction.



Ideal for re-roofing, re-cover, and new construction projects.

SELF-ADHERING TECHNOLOGY

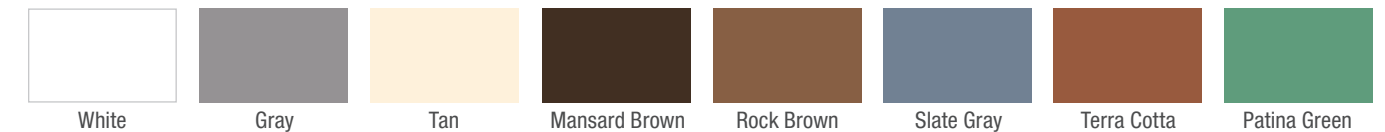
Carlisle's Sure-Weld TPO with Self-Adhering Technology (SAT) comes with adhesive already applied to the bottom ply, making installation faster and easier with no fumes or odors.



- » No odors or VOCs to disrupt building occupants
- » Provides labor savings of up to 80%

SPECIAL COLOR PROGRAM

Turn your roof into a canvas with Carlisle's TPO Special Color Program. The leader in single-ply technology offers more pre-formulated colors than any other manufacturer in the marketplace. Carlisle TPO membrane is available in three standard colors - white, gray, and tan, as well as five additional special colors.*



*Color samples printed here are approximations. For actual colors, request a sample of TPO Special Color membrane.



PVC Roofing Systems

Sure-Flex PVC single-ply membranes have provided dependable protection and proven performance since the 1960s, making them a popular choice among roofing consultants and specifiers. PVC's excellent resistance to chemicals, grease, fire, and punctures make it an ideal choice for a wide variety of buildings. Carlisle offers a Sure-Flex PVC membrane for virtually any specification, from high-performance KEE HP products to tenacious Type IV PVC.

ADVANTAGES OF SURE-FLEX PVC & KEE HP

-  **PROVEN LONG-TERM PERFORMANCE**
-  **FIRE, OIL, GREASE, AND ANIMAL FAT RESISTANCE**
-  **WELDED SEAMS "BLEED OUT" FOR WELD CONFIRMATION**
-  **EASY TO REPAIR**



FEATURED PRODUCT KEE HP (High Performance)

Carlisle's KEE HP-enhanced PVC uses the highest grade of Elvaloy, a plasticizer manufactured by DuPont, and provides several advantages:

- » Resistant to microbial growth and dirt pick-up, helping to maintain reflectivity values and aesthetic appeal
- » Better low-temperature flexibility
- » Excellent resistance to chemicals, fuel, grease, and industrial pollutants

QUALITY MANUFACTURING

Carlisle's state-of-the-art manufacturing line constantly monitors over 10,000 data points for quality assurance. With computer-controlled extrusion and constant tension control, you can be confident that Carlisle's high-quality Sure-Flex PVC and KEE HP products will provide long-term protection.

IMPROVED ACCESSORY PERFORMANCE

All of Carlisle's prefabricated and injection-molded flashing accessories are crafted from KEE HP for improved performance at critical transition areas.


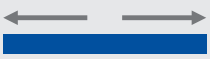



Scan here to download the Sure-Flex KEE HP & PVC Accessories Sheet.



STRONGER TYPE IV CONSTRUCTION








Sure-Flex PVC and KEE HP membranes provide higher breaking strength, tear resistance, and elongation properties than typical ASTM D4434 Type III/IV PVC Standards. All of Carlisle's bareback and FleeceBACK PVC and KEE HP membranes exceed the ASTM standards.

	Type III	Type IV	% Increase	Sure-Flex PVC	Sure-Flex KEE HP
 Breaking Strength	200	275	38%	330 65 %	320 60 %
 Elongation	15	25	66%	25 66 %	30 100 %
 Tearing Strength	45	90	100%	130 190 %	125 180 %

Carlisle's FleeceBACK systems are ideal for new construction and re-roofing projects and are particularly well-suited for Roof Gardens, solar applications, and critical facilities that require superior protection against severe weather. Composed of Carlisle's EPDM, TPO, PVC, or KEE HP membrane adhered to 55-mil fleece, FleeceBACK systems provide long-term protection against high winds, hail, and punctures. FleeceBACK membranes are installed using FAST or Flexible FAST Adhesive for a quiet, VOC-free, low-odor, non-penetrating application.

ADVANTAGES OF FLEECEBACK & FLEXIBLE FAST ADHESIVE

When applied to FleeceBACK membranes, Carlisle's impact-resistant Flexible FAST Adhesive forms a tenacious, interlocking bond with the fibers of the fleece and increases the membrane's resistance to hail and punctures.

-  Fleece reinforcement creates a thick, durable sheet and increased protection
-  When adhered directly to concrete, all FleeceBACK membranes pass FM's severe hail test and achieve a UL 2218 class 4 rating
-  Industry-leading wind performance with uplift pressures from 90-945 psf (depending on substrate)
-  Excellent resistance to punctures and tears
-  Quiet, low-odor installation – ideal for re-roofing occupied buildings
-  Weighs 75% less with 67% fewer seams than modified bitumen
-  FleeceBACK TPO, PVC, or KEE HP membranes are Cool Roof Rating Council (CRRC) certified. The combination of FleeceBACK membranes with Flexible FAST Adhesive increases energy savings by eliminating thermal bridging of mechanical fasteners and insulation joints, providing additional R-value.



FLEECEBACK AFX MULTI-PLY ROOFING SYSTEMS

Carlisle's FleeceBACK AFX multi-ply roofing systems are comprised of highly puncture-resistant FleeceBACK AFX EPDM, TPO, or FleeceBACK KEE HP membranes adhered with Carlisle's HotMopped or ColdApplied asphalt adhesive. The FleeceBACK AFX system is ideal for new construction and recovering existing asphalt-based roofing systems. Advantages of a FleeceBACK AFX system include:

- » Fast and quiet installation
- » Low-VOC ColdApplied adhesive
- » Added redundancy
- » Up to 75% fewer seams than modified bitumen
- » Improved resistance to ponding water

FLEECEBACK FR (FIRE-RATED) TPO ROOFING SYSTEMS

Carlisle's FleeceBACK FR (Fire-Rated) TPO mechanically fastened roofing systems provides a UL Class A fire rating for direct-to-wood-deck applications. Carlisle's patent-pending FR fleece significantly reduces labor by eliminating the need for multiple layers of base sheet or a gypsum thermal barrier. Advantages of a FleeceBACK FR TPO roofing system include:

- » No VOCs or odors
- » Fleece reinforcement adds toughness, durability, and excellent resistance to hail and punctures
- » Wide window of weldability
- » Enhanced with the OctaGuard XT weathering package, providing exceptional resistance to heat, solar UV, ozone, and oxidation



Scan here to learn more about RapidLock Roofing Systems.

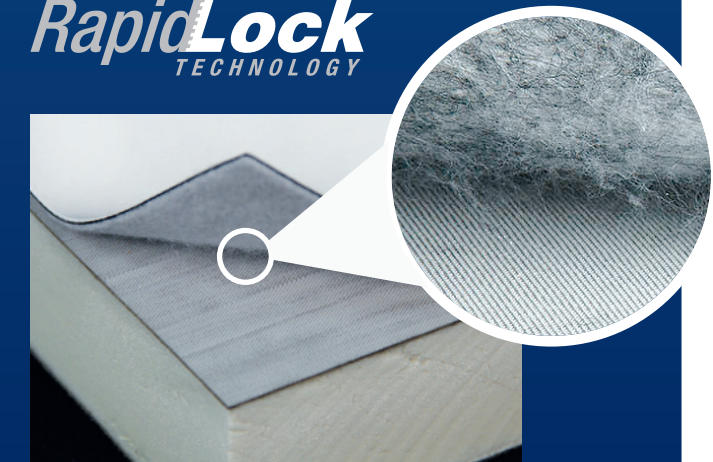
FEATURED PRODUCT

RapidLock Roofing Systems

Carlisle's RapidLock (RL) Roofing System is a revolutionary membrane attachment method that provides an adhered system without the use of adhesives. The RL system utilizes VELCRO Brand Securable Solutions along with FleeceBACK RL EPDM or FleeceBACK RL TPO to achieve performance that is on par with traditional adhered single-ply systems. Underlayment options include InsulBase RL or SecurShield HD RL Polyiso. The RapidLock system is free of VOCs and odors, has no application temperature restrictions, and provides significant labor savings due to its simplicity and ease of installation. Advantages of the RapidLock system include:

- » Installation in any temperature
- » No waiting for adhesive string-time or flash-off
- » No stirring or cleanup of adhesives
- » Up to 80% labor savings compared to traditionally adhered single-ply membranes
- » Up to 25% labor savings compared to an adhered FleeceBACK system

RapidLock
TECHNOLOGY



Insulation Products

Carlisle's insulation products, including lightweight, cost-effective polyisocyanurate (Polyiso) insulation, and expanded polystyrene (EPS) insulation, provide energy-efficient solutions for buildings in any region and climate, as well as outstanding return on investment. Carlisle features an array of options, including standard-density, high-density, and non-halogenated Polyiso.



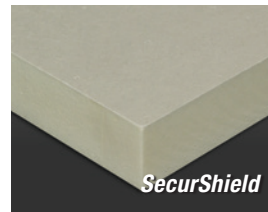
InsulBase Polyiso

ADVANTAGES OF POLYISO

- » Highest R-value per inch of any ridged foam board insulation
- » Minimal water absorption and vapor transmission
- » Compatible with all single-ply membranes
- » Exceptional fire resistance
- » Long-term thermal resistance
- » Superior compressive strength and design flexibility
- » Outstanding installed cost advantages

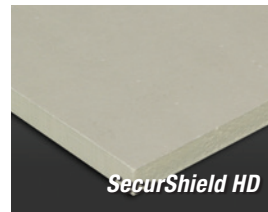
STANDARD DENSITY

Carlisle's standard-density Polyiso options include InsulBase, SecurShield, InsulBase Tapered, and SecurShield Tapered. All of Carlisle's SecurShield products provide outstanding moisture resistance.



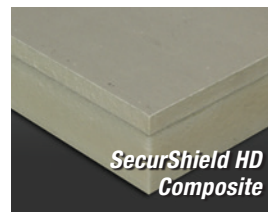
HIGH DENSITY 1/2"

Carlisle's high-density 1/2" coverboard options include SecurShield HD, SecurShield HD Plus, and InsulBase HD. These coverboards excel in hail protection and resistance to foot traffic.



COMPOSITE BOARDS

Carlisle's composite boards include StormBase® and SecurShield HD Composite. These single-product solution boards are known for their labor saving benefits because they eliminate the need for a separate cover board and reduce inter-ply adhesives.

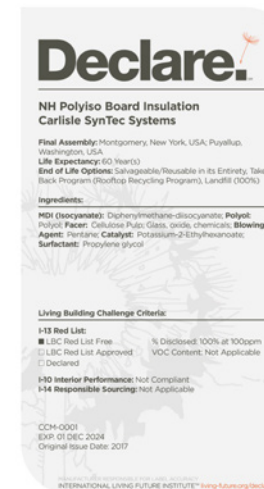


InsulBase Polyiso

NON-HALOGENATED INSULBASE NH & SECURSHIELD NH

Carlisle's new non-halogenated (NH) InsulBase and SecurShield Polyiso offer an environmentally friendly insulation option with the same performance characteristics as traditional Polyiso. Advantages of NH InsulBase and SecurShield Polyiso include:

- » Living Building Challenge "Red List Free" – Declare Label
- » Zero halogenated flame retardants
- » Zero ozone-depleting components
- » Environmentally friendly
- » Same proven performance as traditional InsulBase and SecurShield Polyiso



Scan here to see more information on Carlisle's ChannelDry EPS Insulation.

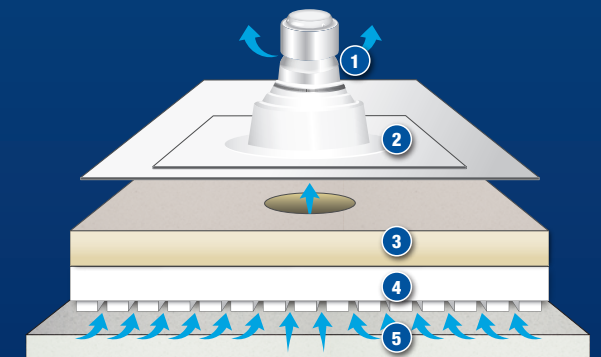
FEATURED PRODUCT

ChannelDry® EPS Insulation

Carlisle's revolutionary ChannelDry EPS Insulation is ideal for new construction projects with structural concrete or lightweight structural concrete roof decks. When used in conjunction with one-way and two-way pressure relief vents, ChannelDry allows installation of the roof system to begin upon structural cure of the concrete.



- » Facilitates air movement within roofing system
- » Compatible with structural lightweight concrete and lightweight insulating concrete decks
- » Allows roof installation to begin upon structural cure of concrete
- » Compatible with mechanically fastened, ballasted, induction-welded, and adhered (only with cover board or additional Polyiso) roof systems
- » Additional layers of insulation can be installed above ChannelDry
- » R-value of 7.1 per 2" -thick board



- 1 Pressure Relief Vent
- 2 Carlisle Approved Membrane
- 3 SecurShield Polyiso Insulation
- 4 ChannelDry Vented EPS Insulation
- 5 Structural or Lightweight Structural Concrete Deck

Air & Vapor Barriers

Carlisle offers the roofing industry's widest variety of air and vapor barriers and temporary roof products. Deck types, climate conditions, jobsite conditions, and project schedules determine what type of air and vapor barrier should be used on a project. Carlisle offers VapAir Seal self-adhered SBS membranes, as well as SureMB modified bitumen membranes that can be mopped in asphalt, cold applied, or torched.



VapAir Seal MD

ADVANTAGES OF AIR & VAPOR BARRIERS

- » Included in Carlisle's Total System Warranty
- » Easily flashed with Elastoform Flashing or VapAir Seal Flashing Foam to seal around penetrations
- » Simple installation processes improve the quality of the air and vapor barrier system
- » Tough, durable membranes can handle jobsite traffic

VAPAIR SEAL 725TR

- » Simple peel-and-stick installation
- » Can be used as a temporary roof for up to 120 days
- » Insulation can be adhered directly to the air and vapor barrier, eliminating the need for fasteners

MODIFIED BASE SHEETS

Modified base sheets offer additional options for air and vapor barriers as well as temporary roofs. Deck type, jobsite conditions, and weather can dictate which product is the best option. Modified sheets can improve temporary roofs' durability and can be installed in a wider range of weather conditions than self-adhered products.

- » **Vented Base Sheet** – a non-porous sheet designed to vent vapor through channels on the bottom surface. This product is constructed with a fiberglass mat coated with weathering-grade asphalt.
- » **SureMB 120TG** – a smooth-surfaced, torch-grade SBS base ply reinforced with a fiberglass mat that is saturated and coated with high-quality asphaltic bitumen and SBS elastomers for durability and flexibility. This product is compatible with Carlisle's polyurethane adhesives for insulation attachment.
- » **SureMB 90 Base Ply** – a smooth-surfaced, asphalt-applied SBS base ply reinforced with a fiberglass mat that is saturated and coated with high-quality asphaltic bitumen and SBS elastomers for durability and flexibility. This product is compatible with Carlisle's polyurethane adhesives for insulation attachment.
- » **SureMB 70 SA Base Ply** – a smooth sand surface SBS (Styrene-ButadieneStyrene) self-adhered membrane. Manufactured with a fiberglass mat that is saturated and coated with a premium quality bitumen with durable SBS elastomer with a poly release liner for easy installation. It is designed to be used as an air and vapor barrier and/or a temporary roof (for up to 60 day). Insulation may be adhered directly to the SA 70 using our Flexible FAST adhesive. SureMB 70 SA can be used in Carlisle's multiple ply systems as a base ply.

FEATURED PRODUCT

VapAir Seal MD

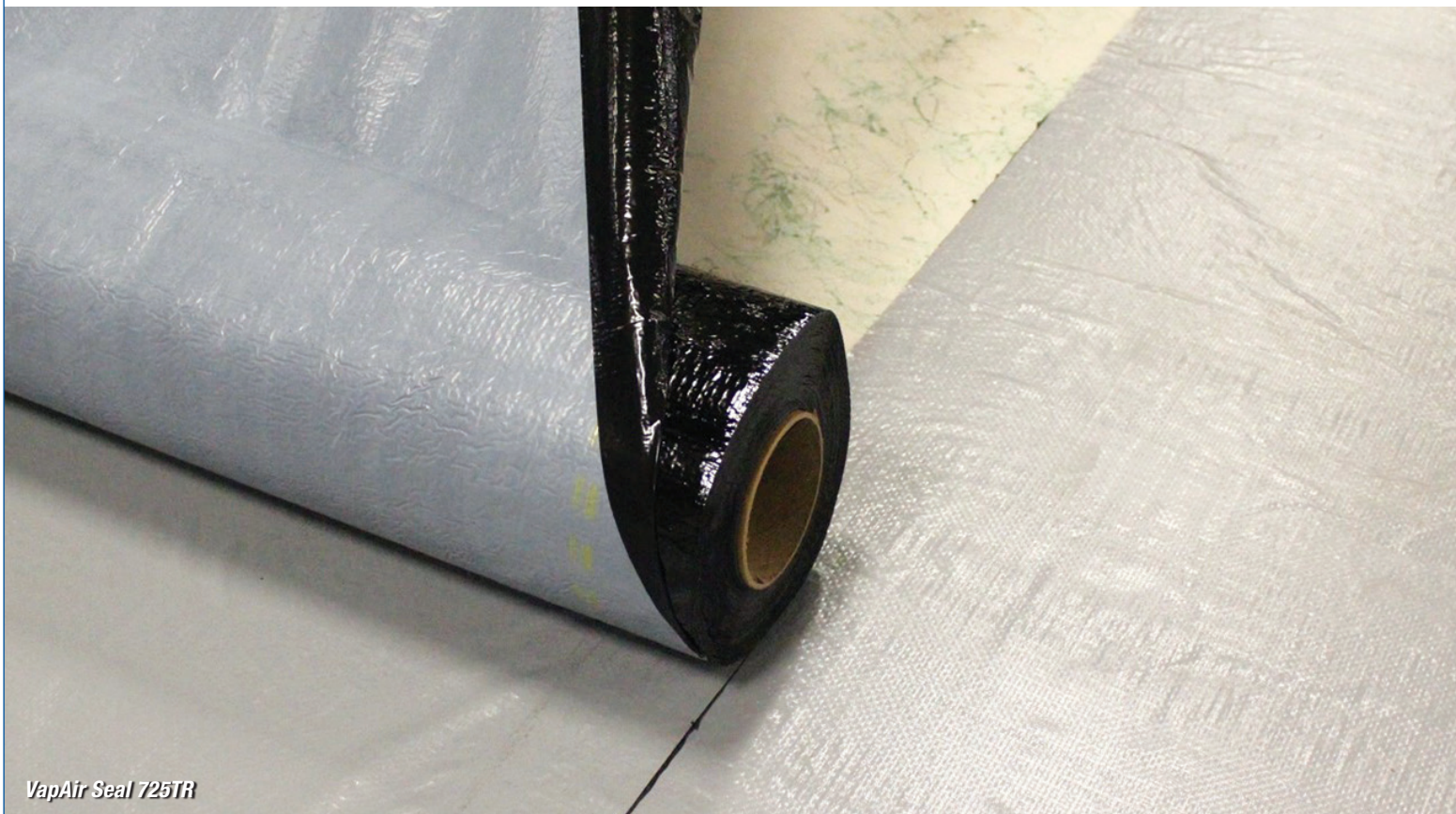
- » Only self-adhered air and vapor barrier that meets FM 4450 and UL 1256 fire ratings
- » Eliminates the need for an additional thermal barrier on metal decks, saving time and money
- » Easy installation

AIR & VAPOR BARRIER FIELD GUIDE

- » Industry's first comprehensive air and vapor barrier field guide
- » Air and vapor barrier product information
- » Installation instructions
- » Details to complete the air and vapor barrier system



Scan here to download a copy of the field guide.



VapAir Seal 725TR

SecurEdge Perimeter Roof Edge Systems

Carlisle's SecurEdge perimeter roof edge systems are the first line of defense against wind, ensuring a polished perimeter and long-lasting protection. Carlisle's unmatched line of roof edge products is available in a range of materials, profiles, and color options to meet any project's needs.



WHY EDGE METAL?

- » Roofs first line of defense against wind.
- » Almost all high wind low-slope roof failures begin at the windward edge and a proper edge system design could prevent much damage.
- » Effective termination and transition between the roof and other building components.
- » Aesthetic feature to the building exterior.
- » The roof is 10% of a total building cost, perimeter edge is typically 1% of the building cost. **However, 60% of roof failures are due to metal edge failures in high wind events!**

WHY CARLISLE?

- » Ensure compliance with ES-1 which has been an IBC requirement since 2003.
- » Most prefabricated systems are also FM approved.
- » Guaranteed performance covered under total system roofing warranty for up to 30 years and windspeeds up to 120mph based on profile.
- » Finish warranties available up to 30 years.
- » Prefinished painted steel/aluminum, and TPO/PVC clad available.
- » Prefabricated and shop fabricated system offerings.

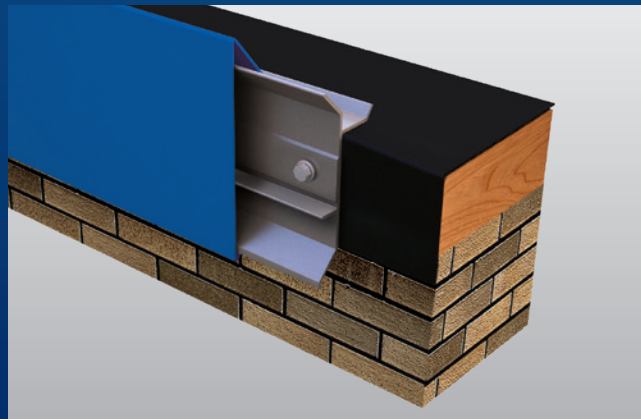
Prefabricated Cleat with Shop Fabricated Cover

- » Warranty terms up to 20 years and windspeeds up to 80mph.
- » Galvanized and extruded aluminum cleats available in multiple sizes.



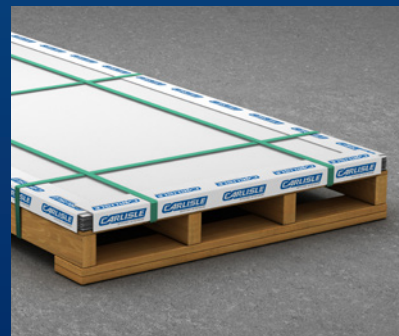
Prefabricated System

- » Warranty terms up to 30 years and windspeeds up to 120mph.



Shop Fabricated System

- » Warranty terms up to 20 years and windspeeds up to 55mph.
- » ES-1 compliance dependent upon contractor's certification status.



For more information on Carlisle's Edge Metal Systems, scan here:



Skylights & Accessories

Carlisle offers conventional aluminum-framed skylights as well as a variety of roof accessories. Carlisle's SunWeld™ PLUS by VELUX and SunPath™ skylights focus on energy efficiency by bringing daylight into the building while keeping it water-tight. Carlisle's roof accessories focus on improving productivity and efficiency and include items such as roof drains, pipe supports, counterflashing, scuppers, and downspouts.

SKYLIGHTS

SunWeld PLUS and SunPath Skylights

- » SunWeld PLUS by VELUX can be manufactured in a variety of custom skylight options with a revolutionary dynamic dome design and extended warranty coverages up to 20 years.
- » SunPath Tubular Daylighting Device (TDD) skylights are available in various sizes and are great for bringing daylight to hard-to-reach areas inside buildings. The SunPath TDD features a high-impact acrylic dome fused to an aluminum mounting ring that joins to a seamless aluminum flashing to provide unmatched strength and durability.



All Carlisle skylights are backed by a minimum 10-year, leak-free guarantee.

- » Carlisle offers a variety of accessories with both SunWeld and SunPath Skylights to enhance fall protection, security, and user experience. These offerings include fall protection screens, burglar bars, and interior finish accessories.



SunWeld PLUS Dynamic Dome by VELUX

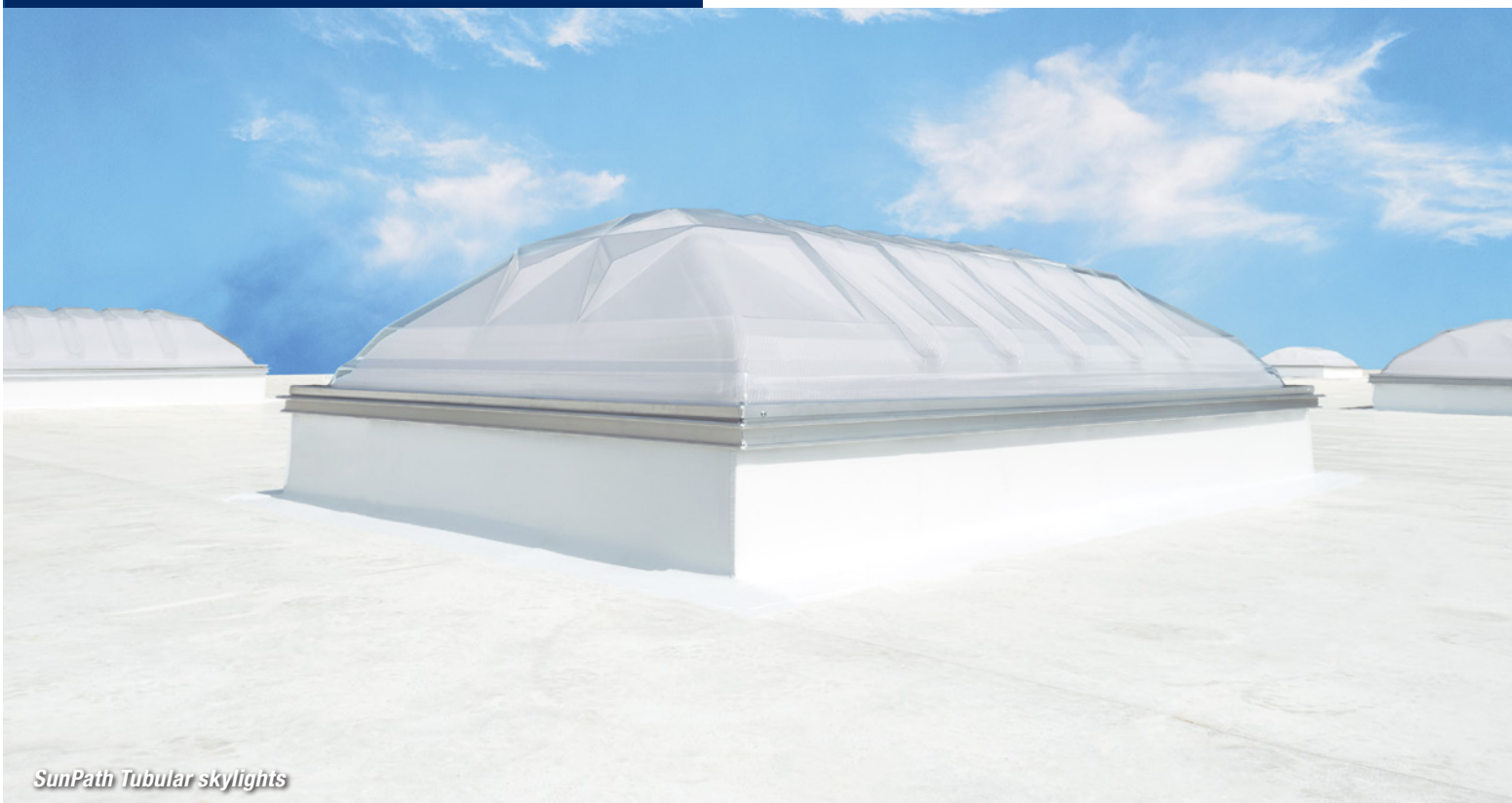
ACCESSORIES

- » **Roof Drains** – Carlisle has two types of retrofit roof drains that are easy to install and come in sizes ranging from 2"-6".
- » **LIQUISEAL® Liquid Flashing** - LIQUISEAL is a liquid-applied flashing system that can be used with all Carlisle membranes to create a water-tight seal around irregularly shaped roof penetrations.
- » **Pipe Supports** – Pipe supports are offered in three sizes to prevent pipes from sagging or damaging the roof.
- » **Counterflashing, Scuppers & Downspouts** – In addition to our SecurEdge perimeter roof edge systems, Carlisle offers high quality drainage and finishing components to match the perimeter metal.



FEATURED PRODUCT SpeedTite® Roof Drain

- » Can be installed in minutes without special tools
- » Uses vortex breaker technology to flow like a new construction drain
- » Covered under Carlisle's total system warranty
- » Heavy-duty aluminum body, strainer, and clamping ring will not rust



SunPath Tubular skylights

Roof Garden Roofing Systems

Carlisle's traditional layered and pre-grown modular Roof Garden systems incorporate a variety of high-performance components, including waterproofing membranes, drainage and water retention layers, engineered growth media, and vegetation options. Offering such a wide range of products allows Carlisle to meet specification requirements for extensive, semi-intensive, and intensive systems.

ADVANTAGES OF ROOF GARDENS



IMPROVED STORMWATER MANAGEMENT

Capture stormwater before it becomes runoff, reducing stress on water treatment facilities and helping to prevent flooding.



INCREASED AMENITY SPACE

Add beautiful, usable outdoor space to buildings.



REDUCED URBAN HEAT ISLAND EFFECT

Sunlight is absorbed by rooftop vegetation instead of being reflected back into the atmosphere.



EXTENDED SERVICE LIFE

Protect the underlying roof system from weathering and physical damage.



*Pittsburgh Convention Center,
Pittsburgh, PA*

FEATURED PRODUCT MiraDRAIN® G4 Drainage Composite

Carlisle's MiraDRAIN G4 Drainage Composite combines filter fabric, moisture retention mat, drainage mat, and heavy-duty protection fabric into a single, easy-to-apply product specifically designed for vegetated roofs.



INDUSTRY-LEADING WARRANTY COVERAGE

Carlisle's industry-leading, single-source warranties protect the Roof Garden components as well as the underlying roof system. Carlisle's available Single-Source overburden removal and replacement warranties, as well as vegetation warranties eliminate unwanted building owner liability.



Scan here to watch a video about
a Roof Garden in Denver, CO.



Seaport Hotel, Boston, MA

Paver Systems

Carlisle's Plaza Paver Systems combine aesthetic appeal with practical functionality. These systems expand amenity space for building occupants within the existing building footprint while providing physical protection to the underlying roofing system. With a comprehensive range of concrete, rubber, porcelain, and wood pavers available in various colors and sizes, alongside adjustable and fixed-height pedestals, Carlisle ensures a single-source solution supported by our industry-leading warranties and service.



ADVANTAGES OF PAVER SYSTEMS



PROVIDES PHYSICAL PROTECTION



INCREASES BUILDING'S AESTHETICS



CREATES FUNCTIONAL AMENITY SPACE



INCREASES PROPERTY VALUE



NUMEROUS MATERIALS, COLORS, AND SIZES



For more information on Carlisle's Roof Garden and Paver Systems, scan here.

Concrete

- » Greatest Compressive Strength
- » Most Resistant Against Wind Uplift
- » Widest Variety of Design Possibilities



Rubber

- » Light Weight
- » Interlocking Design
- » Cushioned/Shock Absorbing



Porcelain

- » Anti Slip
- » Stain and Chemical Resistant
- » Exceptionally Resistant to Weathering Effects



Wood

- » Natural Look
- » Permeable
- » Sustainably Sourced/Harvested

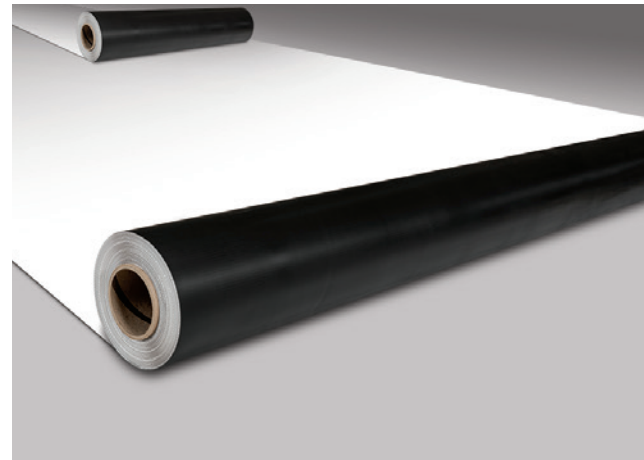


Innovative Products

16-FOOT SURE-WELD TPO MEMBRANE

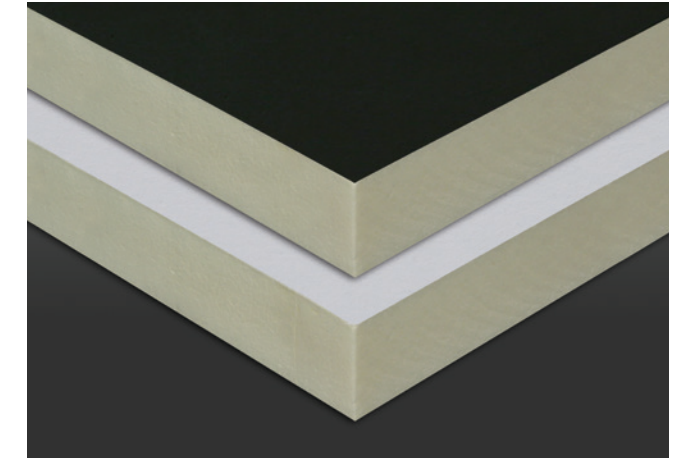
An industry first, Carlisle's 16-foot-wide TPO membrane increases productivity on adhered and induction welded installations by reducing the number of rolls needed and dramatically reducing the number of seams on the roof.

- » Up to 60% fewer seam to weld, probe, and inspect
- » Reduce loading time and staging
- » Reduced waste and trash from packaging
- » Complete more projects and generate additional revenue and profit



READYFLASH® TECHNOLOGY

Carlisle's ReadyFlash Technology allows contractors to manipulate adhesive flash-off times by choosing between two different-colored facers on every board. ReadyFlash products feature a dark-colored coated glass facer (CGF) on one side of the insulation board and a light-colored CGF on the other. Utilizing the sun's energy, the dark facer accelerates adhesive flash-off, while the light facer slows it down.



SURE-WHITE REINFORCED EPDM

Carlisle SynTec Systems is pleased to introduce its new Sure-White Reinforced EPDM for mechanically fastened and adhered roofing systems. Sure-White Non-Reinforced EPDM has been performing in the field for more than 35 years and provides industry-leading UV weathering performance based on proprietary formulations. Carlisle has fine-tuned and optimized these formulations to create a high-performance internally reinforced sheet for use on mechanically fastened roofs.



VACUSEAL™ VENT SECURED ROOFING SYSTEM

The fact that roofs need to offset wind forces is not a new concept. That's why Carlisle SynTec Systems is pleased to introduce the VacuSeal Vent Secured Roofing System. This revolutionary assembly uses special vents that harness the power of the wind to lock roof membranes in place. VacuSeal systems are quick and easy to install and save you money and labor by substantially reducing the amount of glue, ballast, or fasteners your project requires. This system is designed to provide optimal performance while opening opportunities for retrofit and monolithic deck applications.



SURE-FLEX PVC WITH APEEL PROTECTIVE FILM

Carlisle's patented APEEL Protective Film guards the surface of PVC and KEE HP membranes from scuffs and dirt accumulation during installation, eliminating the need to clean the roof once the project is complete. Durable and easy to remove, APEEL Protective Film helps save time and labor, improves aesthetics, and maintains reflectivity. Sure-Flex PVC membranes with APEEL Protective Film are ideal for re-roofing, re-cover, and new construction projects.



FLEECEBACK RAPIDLOCK RL ROOFING SYSTEMS

RapidLock (RL) is an adhesive-less system that uses VELCRO® Brand Securable Solutions to attach 115-mil FleeceBACK RL EPDM, FleeceBACK RL TPO, and FleeceBACK RL PVC to InsulBase RL or SecurShield HD RL polyiso insulation. With performance on par with traditional fully adhered single-ply systems, RapidLock systems provide up to 80% labor savings compared to installations using traditional bonding adhesive and up to 25% labor savings compared to installations of traditional FleeceBACK systems.



Productivity Boosting Products



DUAL-TIP SPRAY APPLICATOR FOR CAV-GRIP III

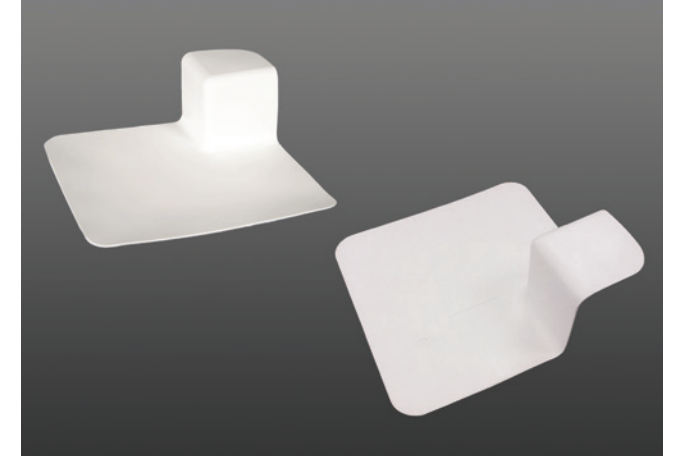
Carlisle SynTec Systems is pleased to introduce its Dual-Tip Spray Applicator, which is specially designed for use with CAV-GRIP III Adhesive systems. This productivity-boosting tool is a precision-machined dual-tip attachment that reduces application time by spraying two streams of adhesive with a single CAV-GRIP Spray Gun and Hose. In addition to reduced application time, the Dual-Tip Spray Applicator improves application consistency without impacting adhesive flow or coverage rates.



SURE-FLEX PVC AND SURE-WELD TPO UNIVERSAL CORNERS

Carlisle's laborsaving, pre-molded Sure-Weld TPO and Sure-Flex PVC Universal Corners are ideal for flashing corners on a variety of details. These accessories provide the following laborsaving benefits:

- » Up to 60% labor savings compared to traditional field fabrication
- » Quick and simple installation with no stretching required
- » One product that can be used for both inside and outside corners



FACTORY-APPLIED TAPE

Carlisle revolutionized the single-ply industry with the first EPDM field manufactured sheet with Factory-Applied Tape. Available on all of Carlisle's EPDM membranes, Factory-Applied Tape saves time and money by providing the following advantages:

- » Enhanced seam performance with fewer wrinkles
- » Reliable performance; excellent peel and shear strengths with no entrapped air bubbles
- » Reduced time and labor; seaming productivity improved by nearly 75%
- » Maximized splice area with consistent placement



SAT™ (SELF-ADHERING TECHNOLOGY) EPDM

Carlisle's SAT EPDM membrane offers excellent weatherability and hail resistance while providing significant labor savings on the rooftop. EPDM's 60-plus years of proven performance, in combination with Carlisle's SAT, results in an easy-to-install system that makes applicators more productive and leaves building owners more satisfied.



CAV-GRIP III LOW-VOC ADHESIVE/PRIMER

This spray gun-applied adhesive requires no stirring or waiting for flash-off, can be used in cold temperatures, is quick to apply, and has a 5-minute set-up time, resulting in up to 60% labor savings when compared to installations using traditional bonding adhesive. CAV-GRIP III is an excellent option for adhering standard TPO to horizontal surfaces and can also be used to adhere all FleeceBACK membranes, as well as standard TPO and EPDM, to vertical walls.



Scan here to view all of our productivity boosting products.



EXPERIENCE THE CARLISLE DIFFERENCE

Carlisle SynTec Systems' U.S. Locations



*CCM also has manufacturing operations in Europe and Canada.

- | | | | |
|--|---|---|-----------------------------------|
| 1. CCM Polyiso Insulation | 9. Drexel Metals Division Headquarters†
Carlisle Architectural Metals | 14. CCM Polyiso Insulation | 22. Carlisle Architectural Metals |
| 2. CCM EPS Insulation
Carlisle Architectural Metals | 10. CCM PVC Membrane
CCM EPDM Membrane | 15. Carlisle Architectural Metals | 23. Carlisle Architectural Metals |
| 3. CCM TPO Membrane
CCM Polyiso Insulation | 11. CCM Polyiso Insulation | 16. CCM Polyiso Insulation | 24. Carlisle Architectural Metals |
| 4. Carlisle Architectural Metals | 12. Carlisle Architectural Metals | 17. Hunter Panels Division Headquarters†
CCM Polyiso Insulation | 25. Carlisle Architectural Metals |
| 5. Carlisle Polyiso Insulation | 13. Carlisle Construction Materials Corporate
Headquarters†
CCM EPDM Membrane
CCM TPO Membrane | 18. Carlisle Architectural Metals | 26. Carlisle Architectural Metals |
| 6. CCM TPO Membrane | | 19. PAC-CLAD Petersen Division Headquarters†
Carlisle Architectural Metals | 27. Carlisle Architectural Metals |
| 7. CCM Polyiso Insulation | | 20. Carlisle Architectural Metals | 28. Carlisle Architectural Metals |
| 8. Carlisle Architectural Metals | | 21. Carlisle Architectural Metals | 29. CCM Polyiso Insulation |
- †Division Headquarters



800-479-6832 | P.O. Box 7000 | Carlisle, PA 17013 | Fax: 717-245-7053 | www.carlislesyntec.com