



TRUSTED COMPATIBILITY | **WARRANTED PROTECTION**





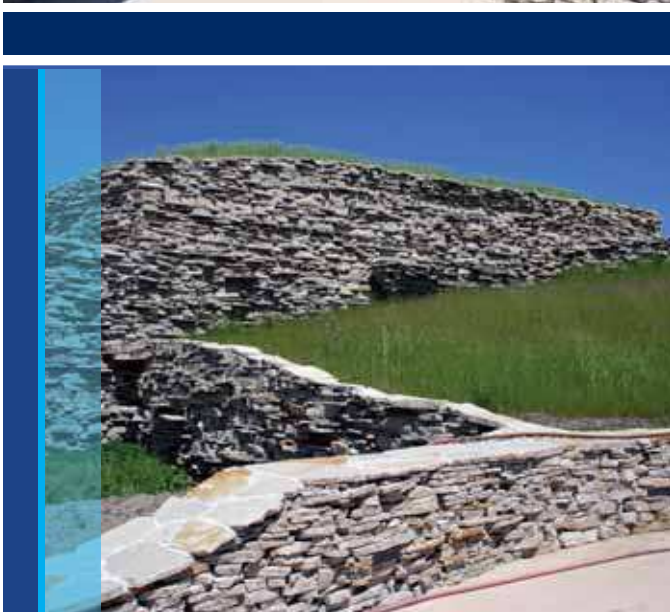
Qatar National Convention Centre at night. Doha, Qatar, Middle East

Carlisle Value

For over 50 years, the name Carlisle has been synonymous with high-quality, innovative commercial building materials. Since its inception as a company, Carlisle has been dedicated to providing construction professionals with the best products, services, and warranty programs on the market.

Today, as the world's largest supplier of commercial roofing materials, Carlisle's product offerings have grown but the company's mission remains much the same as it was 5 decades ago: developing and manufacturing the industry's most innovative, highest-quality products to enhance building performance and promote sustainability.

Carlisle Construction Materials' roofing, waterproofing, and insulation companies have joined forces to create the industry's only comprehensive building envelope system backed by a single-source warranty that protects all six sides of your building, including tie-ins. NVELOP Building Envelope Solutions incorporates high-performance products manufactured by Carlisle SynTec Systems, Carlisle Coatings & Waterproofing (CCW), Hunter Panels, and Insulfoam, and is unique in its ability to ensure product compatibility between the three systems that make up the building envelope. NVELOP's combination of high-quality products, proven tie-in details, and industry-leading warranty options provide you with confidence in the performance and protection the system will provide.



*The National Great Rivers Research & Education Center, East Alton, IL
Products Shown: Roof Garden, Tubular Daylighting*

With more than 50 years of experience in the construction industry and an extensive offering of roofing and waterproofing materials, wall and roof insulation, and air and vapor barrier products, Carlisle Construction Materials (CCM) offers the expertise, service, and support you need to create a durable, energy-efficient, and high-performance building envelope.



“Carlisle’s NVELOP program is a great way to ensure our customers end up with high-performance, energy-efficient buildings. Because all the products are made by Carlisle companies, we know that they are compatible and long-term adhesion will not be a problem. Another big advantage is that Carlisle provides standard tie-in details as well as any job-specific details we may need for a project. NVELOP Total System Warranties are available up to 30 years and cover all six sides of a building, providing our customers with confidence in their investment.”

—GREG LUNA, *Luna & Associates*

Support

CCM provides specialized design recommendations, technical assistance, and custom installation details for NVELOP projects. CCM's seasoned design professionals have over 180 years of combined experience and have participated in the research, development, and testing of every component used in NVELOP systems to ensure ideal product compatibility.



Moisture Management

In order for a building envelope system to perform effectively, it must manage moisture movement into and out of the building. NVELOP products and design recommendations protect your facility by eliminating air and water infiltration and preventing condensation issues within the structure.

The Need for a High-Performance Building Envelope

An improperly sealed building can suffer from dramatic energy losses and premature system failure, resulting in significant and unnecessary expenses for the building owner. A building envelope design must take into consideration a number of factors, including building location and use, material compatibility, and constructability. Through its complete integration of roofing, waterproofing, air and vapor barrier, and insulation systems, NVELOP can help you create a high-performance, energy-efficient building envelope for virtually any project.

Code Compliance

A carefully designed building envelope that limits air leakage into and out of a structure is required by both ASHRAE 90.1 and commercial provisions in the IECC codes dating back to 2010. Although these codes are in their infancy, an increasing number of states and municipalities are implementing continuous air barrier requirements. Early adoption ensures your building's compliance with the most up-to-date codes and energy requirements.

Energy Savings

In the United States, commercial buildings represent one of the largest energy use sectors, consuming approximately \$200 billion worth of energy annually. However, energy costs are the largest controllable operating expense for commercial buildings. Incorporating sufficient levels of insulation, as well as an air barrier to eliminate air leakage, can significantly reduce your building's energy usage.

Return on Investment

Steadily rising energy costs make energy-efficiency a critical concern in any building project. By increasing your facility's energy efficiency and durability, NVELOP provides significant cost savings and dramatic returns on investment (ROI), enabling building owners to realize significant reductions in energy bills and long-term maintenance costs. Independent studies suggest ROI in as little as 18 months' time.

A photograph showing two construction workers in a basement. One worker in an orange shirt and white hard hat stands near a wall, while another in a yellow shirt and white hard hat kneels on the floor, applying a waterproofing membrane. Several rolls of blue waterproofing material are stacked against the wall. The floor is covered with a grey membrane featuring white diagonal lines.

CCM offers a range of time-tested below grade waterproofing options as well as new and innovative options to increase performance and installation time.

BELOW-GRADE

Many modern buildings extend below grade level to provide useful additional space; however, water leakage, radon gas, and other air quality concerns are common problems in below-grade applications. Unlike materials that are expected to be replaced several times during a building's service life, below-grade products must be designed to perform for the life of the structure. CCM products' proven history of long-term performance and durability make them ideal for your below-grade waterproofing and insulation needs.



CCW MiraDRAIN® Drainage Boards

CCW's MiraDRAIN drainage boards stop the progressive destruction of concrete foundations by relieving hydrostatic pressure caused by groundwater seepage. MiraDRAIN boards are made of high-impact, high-compressive-strength polystyrene that is bonded to a puncture-resistant protection fabric.



Insulfoam Expanded Polystyrene Insulation (EPS)

Insulfoam's below-grade EPS insulation ensures thermal performance below slabs and on foundation walls. Made of closed-cell polystyrene which absorbs less moisture than XPS in long-term performance tests, Insulfoam's EPS retains its R-value even during freeze-thaw cycles and has been found to retain an impressive 90% of its original R-value after a 15-year field study.



CCW Below-Grade Foundation Waterproofing

CCW offers a wide range of below-grade waterproofing options to fit any project, including its 500R hot rubberized asphalt waterproofing, MiraSEAL™ cold fluid-applied membrane, MiraDRI® self-adhering sheet membrane, MiraCLAY® bentonite clay waterproofing membrane, and MiraPLY™ self-adhering, blindside waterproofing membrane.

ABOVE-GRADE

Designing a proper wall that incorporates an air, moisture, and thermal barrier is critical to achieving maximum energy savings, occupant health and safety, and building longevity. The thinner walls required in modern buildings have led to increased thermal and moisture concerns, but CCM's air and vapor barriers and insulation products for above-grade walls help ensure long-term building performance with proven product compatibility.

A construction worker wearing a hard hat and safety harness is standing on an orange lift platform, applying yellow DensGlass Sheathing to the exterior wall of a building. The sheathing is installed in large panels, and the worker is using a tool to secure them. The building's steel frame is visible in the background.

With multiple insulation and air barrier products, CCM provides architects and specifiers with design flexibility to meet the most recent energy and fire codes while allowing creativity in design.



Hunter Panels and CCW Exterior Continuous Insulation

Hunter Panels' Xci and CCW's R2+™ are specially designed for use in commercial wall applications to provide continuous insulation within the building envelope. Xci and R2+ products combine a durable polyisocyanurate core with a variety of high-performance facers for maximum design flexibility. Because polyisocyanurate provides the highest R-value per inch of any insulation on the market, these products contribute to a smaller overall building footprint, support compliance with codes that limit cavity wall insulation thickness, and produce less waste on the jobsite.



CCW Air & Vapor Barriers

CCW offers self-adhered sheet air and vapor barriers, fluid-applied air and vapor barriers, and vapor-permeable air barriers, all of which have been evaluated by the Air Barrier Association of America (ABAA) and meet the most stringent building codes, including ASHRAE 90.1 Addendum Z, Massachusetts Energy Code 780 CMR, and the Canadian National Building Code. CCW also offers a variety of flashing products for use with its air and vapor barrier systems to increase moisture barrier protection.



For over the last half century, CCM's focus has been on continually improving their commercial roofing products to improve long term performance while decreasing installation time.

ROOFING SYSTEM

Climate, geography, building use, and building type must all be considered when selecting a roof system. Carlisle's roof membrane manufacturers, including Carlisle SynTec Systems, Versico Roofing Systems, and Carlisle WIP Products, offer the widest variety of commercial roofing systems on the market, providing solutions to meet the specific needs of virtually any building.



Carlisle SynTec Systems & Versico Roofing Systems Single-Ply Roofing Membranes

Carlisle's single-ply roofing systems manufactured by both Carlisle SynTec Systems and Versico Roofing Systems, are widely recognized for their durability and long-term performance and are backed by industry-leading warranty options. Carlisle is the only manufacturer to produce its own EPDM, TPO, PVC, and KEE HP single-ply roof membranes, all of which are also available in FleeceBACK™ versions for projects requiring increased durability and wind uplift performance. In addition to membranes, Carlisle manufactures a wide variety of roof insulation, adhesives, and factory-made accessories, all of which are designed to provide superior performance and promote ease of use.



Carlisle Syntec Systems & Versico Roofing Systems Air & Vapor Barriers

CCM manufactures a line of air and vapor barriers specifically for roofing applications. Designed for use on buildings with high internal humidity, both Carlisle SynTec and Versico's air and vapor barriers prevent moisture from entering the roof system and causing condensation-related issues such as loss of insulation R-value.

TIE-INS

No aspect of a building envelope system is more crucial than proper tie-in junctions. For tie-in junctions to be successful, they must be installed properly, using products that are compatible with one another. CCM's NVELOP system takes the guesswork out of building envelope design, providing time-tested tie-in details and proven product compatibility.



Top Photo: University of Connecticut, Jason Laboratory, Farmington, CT

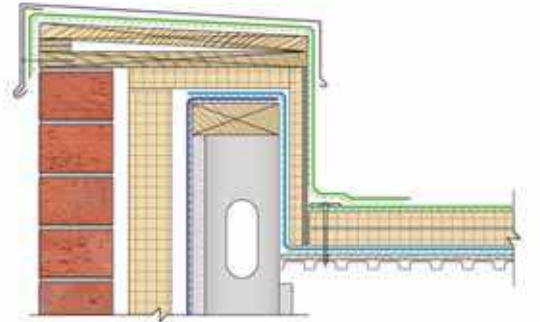
Product Shown: Barritech NP

Bottom Photo: Union Station, Denver CO

Product Shown: MiraPLY

COMPREHENSIVE NVELOP DETAIL OPTIONS

Roof to Wall Tie-In



Below Grade to Wall Tie-In



Scan here to download a
comprehensive package
of NVELOP details.

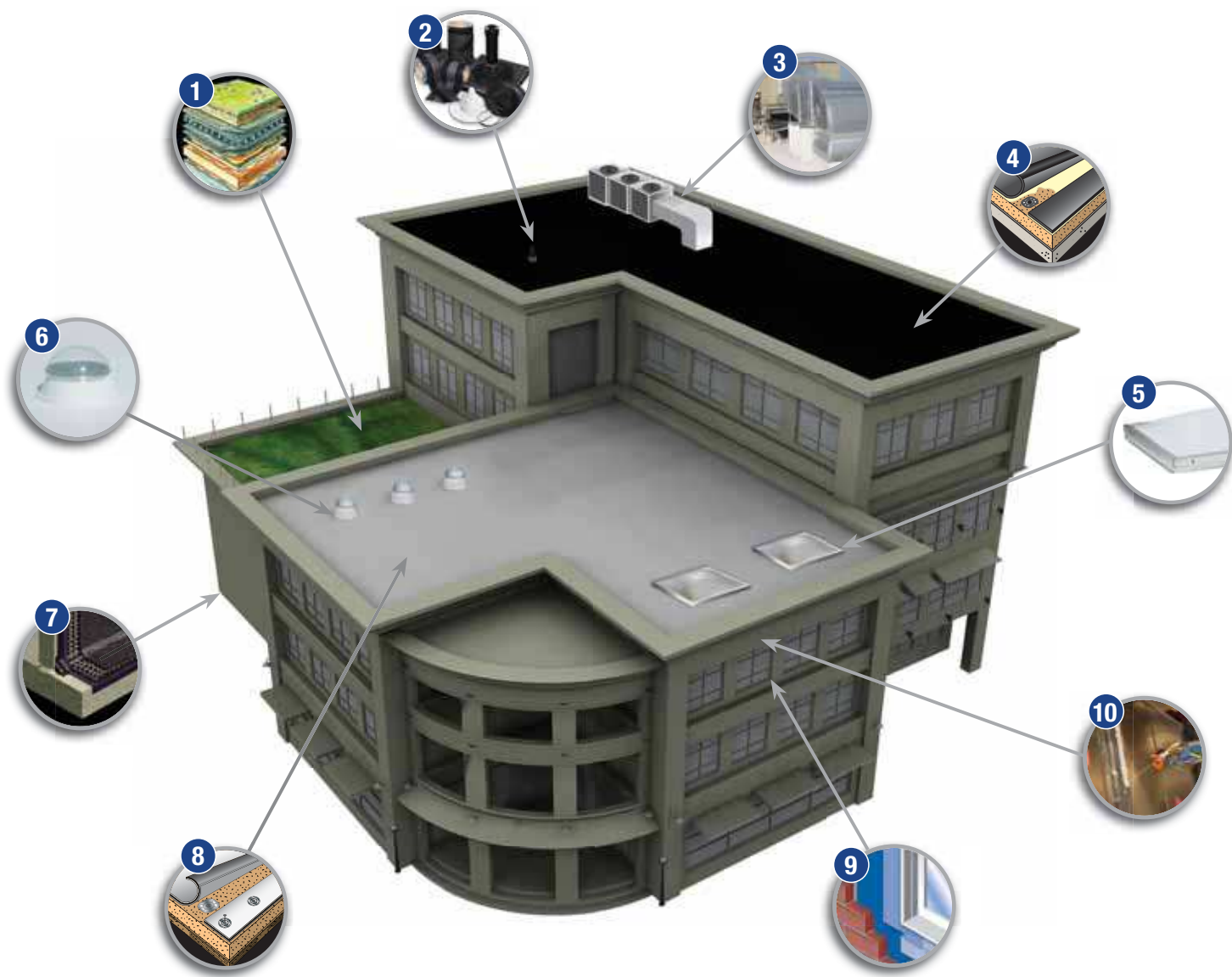


CCM's NVELOP program not only ensures product compatibility at critical tie-in junctions, but also stands behind those junctions by offering the industries only single-source tie-in warranty covering materials and workmanship.

BUILDING ENVELOPE PROGRAM

CCM's roofing, insulation and waterproofing companies, offer a unique combination of experience and innovation, providing the highest quality in both products and services. Together, these companies and their products enable you to create a building envelope system that will provide superior performance and protection against severe weathering conditions.

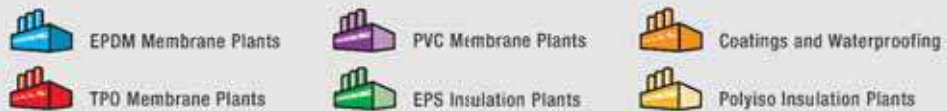
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- 1** Roof Garden and Plaza Deck Assemblies
- 2** Prefabricated Pressure-Sensitive Accessories
(Heat-Weldable Accessories Also Available)
- 3** Roof Top HVAC Sealants
- 4** EPDM Elastomeric Roofing Systems
- 5** Aluminum-Welded Industrial Skylights

- 6** Tubular Daylighting Devices
- 7** Below-Grade Waterproofing Systems
- 8** Thermoplastic Roofing Systems
(TPO, PVC, and KEE HP Available)
- 9** Membrane Air Barriers and Flexible Flashings
- 10** HVAC Duct Sealants

MANUFACTURING LOCATIONS



P.O. Box 7000 • Carlisle, PA 17013 • toll free / +1-800-453-2554 • fax / +1-717-245-7053 • www.carlislenvelop.com

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