SERVICE BEYOND
the Spec Sheet

CARLISLE SPRAY FOAM INSULATION

FOR ARCHITECTS AND DESIGNERS

CARLISLE
SPRAY FOAM INSULATION

100 Enterprise Drive • Cartersville, GA 30120 • 844.922.2355
www.carlislesfi.com

CARLISLE
SPRAY FOAM INSULATION

ABOUT CARLISLE SPRAY FOAM INSULATION

Carlisle Spray Foam Insulation (CSFI) is a leading manufacturer of spray polyurethane foam (SPF) systems. CSFI is focused on ease of use at the point of application and ease of doing business throughout the customer experience. The SealTite™ PRO line of spray foam insulation products is formulated to provide the highest level of thermal protection in both residential and commercial applications. Carlisle's open- and closed-cell spray foam products provide a high R-value per inch, expanding into crevices and cracks to create a precision seal that beats traditional fiberglass, cellulose, and other loose-fill products. CSFI is a fully integrated spray foam insulation solution, backed by the technology resources—and grounded on the corporate stability—of a century-old icon in the building ecosystem, Carlisle Construction Materials.

SealTite™ PRO

SUPERIOR INSULATION CHOICE

Compared to traditional insulation options like extruded polystyrene for exterior commercial walls and fiberglass for wall and ceiling cavities, SealTite PRO spray foam insulation products can be used in both applications to achieve superior performance. Its benefits include stronger structural integrity, lower heating and cooling costs, improved indoor air quality, and reduced noise.

STRONGER STRUCTURAL INTEGRITY

LOWER HEATING AND COOLING COSTS

IMPROVED INDOOR AIR QUALITY

REDUCED NOISE

TRAINING & EDUCATION CENTER

Carlisle believes strongly in the value of education and training. CCM's 68,000-square-foot Training & Education Center in Carlisle, PA, contains areas for classroom-style and hands-on training complete with an indoor spray booth, as well as a theater-style conference room with seating for 135 people. The facility offers a combination of meeting, training, and administrative spaces and features state-of-the-art audio and video equipment, an interactive video wall, and a variety of informal gathering spaces and breakout rooms.

RESEARCH & INNOVATION CENTER

Carlisle Construction Materials 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. CCM is focused on bringing that experience to the spray foam industry. To that end, Carlisle has constructed a new Research & Innovation Center on their Carlisle, PA, campus.

THE CARLISLE EXPERIENCE

ABOUT CARLISLE CONSTRUCTION MATERIALS

Carlisle Construction Materials LLC (CCM) is a diversified manufacturer and supplier of premium building products and related technologies for the commercial and residential construction markets. Carlisle has been a recognized leader in the roofing industry for more than half a century, offering high-performance single-ply roofing solutions that include EPDM, TPO, PVC, and roof garden systems. Carlisle also offers a full line of polyiso and expanded polystyrene insulation as well as a host of steep-slope underlayments, duct sealants, adhesives, and hardware. In addition to roofing, Carlisle services the waterproofing, framing, and general construction industries. Every CCM company offers sustainable, eco-friendly products that help reduce a building's carbon footprint, and often minimize its energy consumption and costs.

CCM is a $3.2B division of Carlisle Companies (NYSE: CSL). The company employs more than 3,800 people and operates 42 plants in North America and 7 in Europe.

The CCM family of brands includes: Carlisle SynTec Systems, Carlisle WIP Products, Carlisle Coatings & Waterproofing, Hardcast Products, Hunter Panels, Insulfoam, Versico Roofing Systems, WeatherBond, Carlisle Roof Foam and Coatings, Carlisle Spray Foam Insulation, Drexel Metals, and Petersen Aluminum Corporation.

PROVEN PERFORMANCE

LABOR SAVING PRODUCTS

CULTURE OF CONTINUOUS IMPROVEMENT

TOP-NOTCH CUSTOMER SERVICE AND SUPPORT

SUSTAINABILITY

DEDICATION TO QUALITY AND INNOVATION

HIGH-PERFORMANCE SPRAY FOAM INSULATION

LIGHT-DENSITY OPEN CELL

SEALTITE PRO OPEN CELL		SEALTITE PRO NO TRIM 21	
THICKNESS (INCHES)	R-VALUE (°F•ft² •h/BTU)	THICKNESS (INCHES)	R-VALUE (°F•ft² •h/BTU)
1	3.7	1	4.4
3.5	13	3.5	15
4	15	4	17
5.5	20	5.5	23

PERFORMANCE FEATURES

- Air impermeable
- Does not sustain mold growth
- Excellent sound attenuation
- Cost-effective

USES

- Exterior wall cavities
- Between floors
- Interior walls
- Ceiling and roof

MEDIUM-DENSITY CLOSED CELL

SEALTITE PRO CLOSED CELL		SEALTITE ONE (CANADA)	
THICKNESS (INCHES)	R-VALUE (°F•ft² •h/BTU)	THICKNESS (INCHES)	LTTR (°F•ft² •h/BTU)
1	6.9	1	6.5
3.5	24	3.5	23
4	28	4	27
5.5	38	5.5	38

PERFORMANCE FEATURES

- Air impermeable
- ABAA evaluated
- Does not sustain mold growth
- Structural enhancement
- Vapor and bulk water barrier
- Impact resistant
- High R-value (thinner walls)
- HFO formulations available

USES

- Exterior wall cavities
- Between floors
- Interior walls
- Ceiling and roof
- Above- and below-grade exterior applications
- Continuous insulation

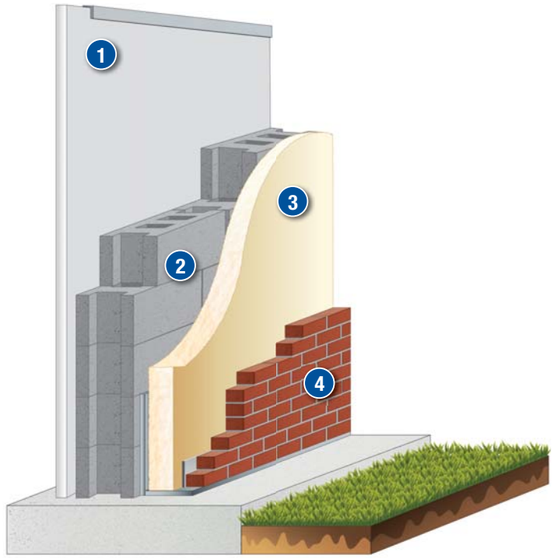
SEAMLESS INSULATION THAT ADAPTS TO YOUR DESIGN

SealTite PRO Spray Foam Insulation adapts and adheres to any surface, shape, and geometry, allowing you to push the boundaries of architectural design and creativity.

ENHANCED WALL ASSEMBLY

The multi-functional performance of closed-cell spray foam insulation provides a complete environmental separator in one product for a cost-effective, high-performance wall system. Closed-cell spray foam insulation provides four levels of protection – thermal, moisture, air, and vapor.

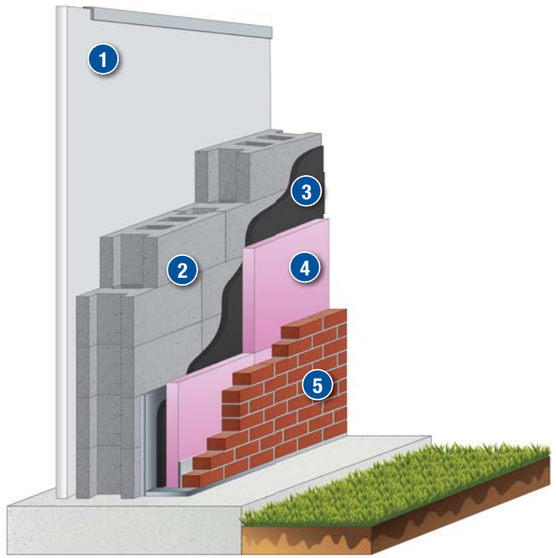
CLOSED CELL SPRAY FOAM INSULATION FOR MASONRY WALLS



CLOSED CELL SPRAY FOAM INSULATION FOR MASONRY WALLS	
1 Gypsum Wallboard	$1.74
2 8" CMU	$10.25
3 3" Closed Cell Spray Foam Insulation (R-21)	$2.89
4 Brick Veneer	$24.00
TOTAL PER SQUARE FOOT	$38.88

COMPARED TO

RIGID XPS FOAM BOARD FOR MASONRY WALLS



RIGID XPS FOAM BOARD FOR MASONRY WALLS	
1 Gypsum Wallboard	$1.74
2 8" CMU	$10.25
3 Polyurethane and Rubberized Asphalt Sheet Barrier	$2.31
4 3" Extruded Polystyrene Insulation (XPS)	$2.72
5 Brick Veneer	$24.00
TOTAL PER SQUARE FOOT	$41.02

Carlisle maintains a continually updated comprehensive binder online that includes all the information you need in a single location.

- Product information
- Technical data sheets
- CSI 3-part specifications
- Details (CAD, PDF)
- Certifications
- Health and safety
- LEED® summary
- UL designs
- ABAA evaluated products and specifications

3-PART CSI SPECIFICATION WRITING TOOLS

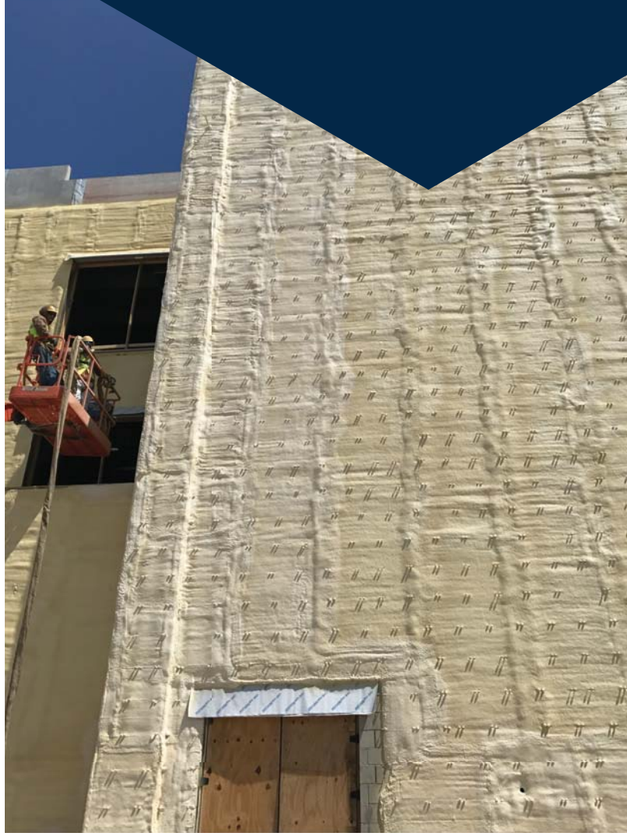
ARCAT · SpecLink · MasterSpec® a product of The American Institute of Architects

UL APPROVED FIRE-RATED DESIGNS

DESIGN	FIRE RATING		
	1-HR	2-HR	3-HR
WOOD-FRAMED WALL	U305 U397	U301 V324	
STEEL-FRAMED WALL	W421 U465	U424 U425 V454 V499 U411 U419 U493	V495
WOOD/STEEL-FRAMED WALL	V313		
FLOOR/CEILING DESIGN	L521 L528 L550 M540		
ROOF/CEILING WOOD-FRAMED	P522 P531 P545		

SERVICE BEYOND THE SPEC SHEET

When planning a project, you need to know more than the technical information about the products you are specifying. You need to know that the products you recommend and ultimately specify are thoroughly tested for performance, designed to meet today's demanding building codes, and backed by expert service.



ARCHITECT AND SPECIFIER RESOURCES

CREATE BOLDLY

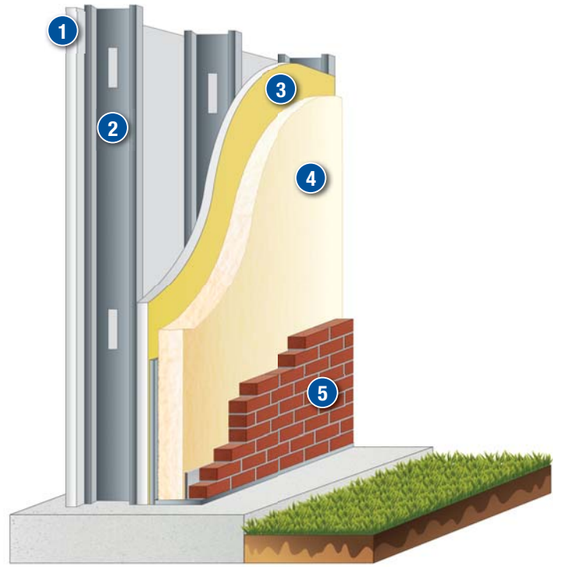
CONTINUING EDUCATION

Carlisle Spray Foam Insulation believes in continuing education for professionals to help advance and improve the industry. As a part of Carlisle Construction Materials, CSFI is proud to support the CCM University educational resource. This online platform offers industry professionals on-demand e-Learning courses that are approved for AIA/IIBEC accreditation for continuing education. CCM University has courses to fit every learning preference, including Lunch & Learn programs, e-Learning courses, and webinars with live Q&A sessions.

CCM UNIVERSITY
CARLISLE SPRAY FOAM INSULATION

COURSE INFORMATION		
UNDERSTANDING SPRAY POLYURETHANE FOAM		This course provides architects, specifiers, and building engineers with a comprehensive overview of spray polyurethane foam insulation. Participants will learn about the features of low- and medium-density spray polyurethane foam insulation including thermal performance, physical properties, characteristics, environmental impact, economics, and resiliency. This course concentrates on the use of medium-density SPF as continuous insulation in exterior commercial wall assemblies and how SPF can provide design flexibility by adhering to common building materials and seamlessly adapting to any shape. Special attention is devoted to code compliance and wall system fire performance.
SPRAY POLYURETHANE FOAM INSULATION AND BUILDING CODE REQUIREMENTS		Spray Polyurethane Foam insulation has become an important building material that enables the design and construction of buildings with ultra-high energy efficiency. The high insulation values keep occupants comfortable with minimal energy costs, and the air and vapor barrier properties sustain healthy indoor air quality by preventing the intrusion of pollution and allergens. SPF is ideal for resilient design practices in areas where flooding and hurricanes are common. New SPF products are formulated with next-generation blowing agents with ultra-low global warming potential and zero ozone depletion potential (ODP).
SPRAY POLYURETHANE FOAM IN COMMERCIAL CONSTRUCTION		This course discusses how to best utilize the physical property differences of open cell and closed cell spray foam insulation to improve the performance of the building envelop in commercial projects. This course also covers environmental considerations and the product testing and certification requirements for use in commercial construction.

CLOSED CELL SPRAY FOAM INSULATION FOR STEEL FRAMING



CLOSED CELL SPRAY FOAM INSULATION FOR STEEL FRAMING	
1 Gypsum Wallboard	$1.74
2 Metal Stud and Track, 16" O.C.	$3.18
3 Gypsum Sheathing with Embedded Glass Mats	$1.94
4 3" Closed Cell Spray Foam Insulation (R-21)	$2.89
5 Brick Veneer	$24.00
TOTAL PER SQUARE FOOT	$33.75

COMPARED TO

RIGID XPS FOAM BOARD FOR STEEL FRAMING

RIGID XPS FOAM BOARD FOR STEEL FRAMING	
1 Gypsum Wallboard	$1.74
2 Metal Stud and Track, 16" O.C.	$3.18
3 Gypsum Sheathing with Embedded Glass Mats	$1.94
4 Polyurethane and Rubberized Asphalt Sheet Barrier	$2.31
5 3" Extruded Polystyrene Insulation (XPS)	$2.72
6 Brick Veneer	$24.00
TOTAL PER SQUARE FOOT	$35.89

Source: 2020 R.S. MEANS BUILDING CONSTRUCTION COST DATA

DESIGN FLEXIBILITY – NFPA 285 COMPLIANT ASSEMBLY GUIDES

Carlisle Spray Foam Insulation gives designers more wall design options than any other spray foam manufacturer by providing an extensive portfolio of NFPA 285 compliant wall assemblies. Partnering with Carlisle's Petersen Aluminum Corporation, SealTite PRO SPF products are the only spray foam products that passed the requirements of NFPA 285 standard with PAC-Clad® Aluminum Cladding. CSFI maintains up-to-date, comprehensive wall assembly guides to ensure your design is NFPA 285 compliant.

CARLISLE SPRAY FOAM INSULATION

WALL ASSEMBLY GUIDE

NFPA 285

Per Chapter 26 of the International Building Code, the wall assembly shall be tested in accordance with and comply with the acceptance criteria of NFPA 285. The listed assemblies in this document have met that criteria.

SEALTITE™ PRO SPRAY FOAM INSULATION AS EXTERIOR AND/OR CAVITY INSULATION

BASE WALL SYSTEM Use item 1, 2, 3, or 4	1. Concrete Wall 2. Concrete MasonryWall 3. Steel Stud Wall – -layer ¼ inch thick type X gypsum wallboard on the interior, installed on minimum 3 inch deep, 20-gauge steel studs, spaced a maximum of 24 inches on center 4. Fire Retardant Treated (FRT) Stud Wall – 1-layer ½ inch thick type X gypsum wallboard on the interior, installed on 2x4 (nin.) Fire Retardant Treated studs spaced a maximum of 24 inches on center
FLOOR LINE FIRE STOPPING Use item 1 or 2	1. 4 inch 4 pcf mineral wool (friction fit or installed with Z-Clips) 2. Fire Retardant Treated (FRT) lumber – 1.5-inch-thick (min.) FRT firestop may only ie used with FRT framing
CAVITY INSULATION Use items 1, 2, or 3 when steel framing is used. Use item 1 or 3 when FRT framing is used.	1. None 2. Full stud cavity depth or less of Carlisle **SealTite™ PRO High Yield, SealTite PRO Open Cell, SealTite PRO No Mix, SealTite PRO No Trim 21, SealTite PRO OCX, SealTite PRO Closed Cell, SealTite PRO One Zero** 3. Any Noncombustible or fiberglass insulation (faced or unfaced)
EXTERIOR SHEATHING	Minimum ½ inch thickexterior type gypsum sheathing
EXTERIOR INSULATION	3 in. max. **SealTite PRO Closed Cell, SealTite PRO One Zero**

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CARLISLE SPRAY FOAM INSULATION

WALL ASSEM

NFP

Per Chapter 26 of the International Building Code, the wall assembly shall be tested in accordance with and comply with the acceptance criteria of NFPA 285. The listed assemblies in this document have met that criteria.

SEALTITE™ PRO SPRAY FOAM INSULATION AS THE CAVITY INSULATION

BASE WALL SYSTEM Use item 1, 2, or 3	1. Concrete Wall 2. Concrete Masonry Wall 3. Steel Stud Wall – -layer ¼ inch thick type X gypsum wallboard on the interior, installed on minimum 3½ inch deep, 20-gauge steel studs, spaced a maximum of 24 inches on center
FLOOR LINE FIRE STOPPING	4-inch 4 pcf mineral wool (friction fit or installed with Z-Clips)
CAVITY INSULATION Use item 1 or 2	1. None 2. Full stud cavity depth or less of Carlisle **SealTite™ PRO High Yield, SealTite PRO Open Cell, SealTite PRO No Mix, SealTite PRO No Trim 21, SealTite PRO OCX, SealTite PRO Closed Cell, SealTite PRO One Zero**
EXTERIOR SHEATHING	Minimum ½ inch thickexterior-type gypsum sheathing
WEATHER RESISTANT BARRIER OVER BASE WALL Use item 1 or 2 Note: Approvals from IAPMO, DrJ Engineering, ICC-ES, Intertek, UL, or other qualified 3rd parties may be used	1. None 2. Any WRB/AVB barrier that has been approved to be used in an NFPA 285 compliant assembly paired with mineral wool polyisocyanurate, EPS or XPS insulation or no exterior insulation for claddings approved for that WRB. See note for approval agencies
EXTERIOR INSULATION Use item 1, 2, or 3 Note: Approvals from IAPMO, DrJ Engineering, ICC-ES, Intertek, UL, or other qualified 3rd parties may be used	1. None – only where the cladding is listed to be approved with specific WRBs (see Note 1) 2. 2-inch thick (min. 4 pcf mineral fiber insulation allowed for use with any WRB on the base wall surface (see Note 1) 3. Any polyisocyanurate, EPS or XPS insulation that has been approved (see note) to be used in an NFPA 285 compliant assembly paired with the WRBs in Item 2 above and claddings in Item 2 below (see Note 2)

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SYSTEMS APPROACH

Carlisle Spray Foam Insulation, as part of Carlisle Construction Materials, is the only spray foam manufacturer that provides everything needed to completely seal and protect the building envelop. Together with other CCM brands such as Hunter Panels, Insulfoam, CCW, and PAC-CLAD, CSFI offers designers the most flexibility and design options to create high performance building envelope solutions from a single source ensuring material compatibility and total system performance.

1 SEALTITE PRO SPF:
Carlisle Spray Foam Insulation is committed to creating the highest quality spray polyurethane products for the spray foam professional. Every SealTite PRO formula is thoroughly tested for consistent performance and backed by the most accurate technical data available. SealTite PRO is available in both Open Cell and Closed Cell to fit your project needs.

2 HUNTER PANELS XCI:
Hunter Panels Xci polyiso products meet the continuous insulation standards prescribed in the current ASHRAE and IECC report for commercial exterior wall applications and IBC Building Code Chapter 26. Products have been NFPA 285 tested with a wide assortment of wall assemblies. Hunter Panels Xci polyiso products provide continuous insulation (ci) for FRT wood frame, steel stud, CMU, and concrete exterior wall constructions.

3 CARLISLE COATINGS AND WATERPROOFING:
Air barriers are essential for a high-performing building envelope. They dramatically improve buildings' energy efficiency and indoor comfort. CCW provides three types of air barriers: self-adhered sheet; fluid-applied; and fluid-applied, vapor-permeable. For increased moisture protection, CCW also provides a variety of flashing products for use with air and vapor barrier systems.

4 PAC-CLAD ARCHITECTURAL METALS:
With a complete line of PAC-CLAD metal products including column covers, corrugated panels, metal composite panels, metal plate panels, and custom heavy-gauge fabrication, Petersen is dedicated to making projects run smoothly and cost-effectively. Petersen also offers the industry's widest range of 45 colors, most of which feature outstanding SRI (Solar Reflectance Index) values for improved cooling and energy savings performance.