

CavityComplete™ Wall Systems



CavityComplete.com
844-CAV-COMP

*The CavityComplete™ Wall System excludes the masonry veneer, steel studs and interior and exterior gypsum board. A detailed list of the components is available at www.CavityComplete.com.

Specify and Install with Confidence

Five of the most recognized and trusted companies in the industry have aligned to introduce the industry's best complete masonry cavity wall system.

With the **CavityComplete™ Wall System for Steel Stud with Masonry Veneer**, you can now specify and detail an assembly with components that are tested and proven to be completely compatible, code compliant and warrantied* to produce a wall system you can have confidence in.

Complete Compatibility*

Each component is great on its own and when combined, they produce a wall that provides thermal efficiency, continuous insulation, air and water management, vapor resistance and brick ties, plus design options that are engineered to maximize performance by climatic region.

Complete Performance*

The CavityComplete™ Wall System features components that were tested together to produce systemized codes and standards compliance data including:

- NFPA 285 (fire)
- ASTM E2357 (air leakage)
- ASTM E331 (water leakage)
- UL listed assembly EWS0008

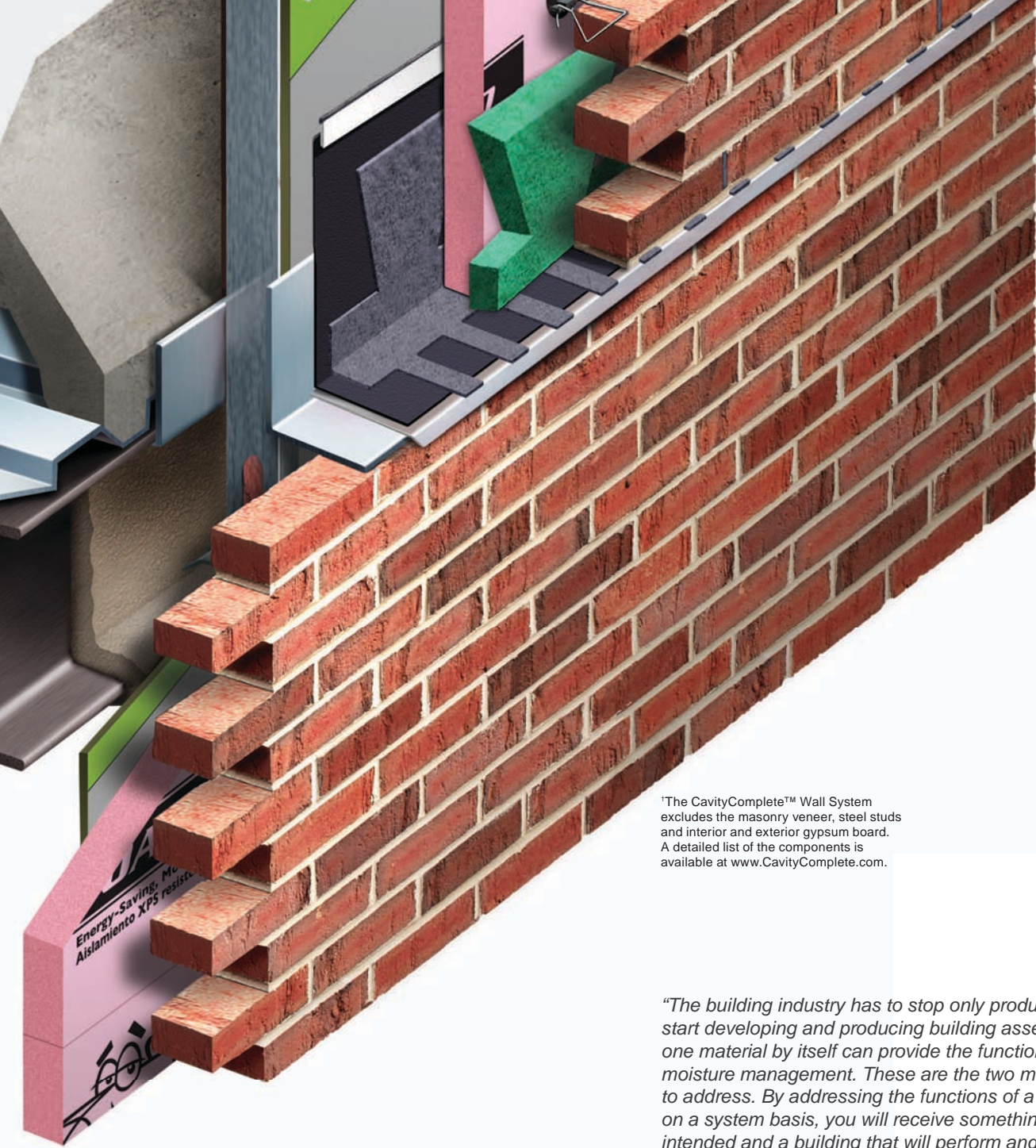
Complete Confidence

The only wall system that has been warrantied** to allow architects and specifiers to design and specify with confidence.

With thousands of products to choose from when designing a masonry cavity wall system for your upcoming project, the **CavityComplete™ Wall Systems** team has designed a complete system that takes the guesswork out of specification.

With the warranty and testing behind this system, you can specify with confidence.

*The CavityComplete™ Wall System components were successfully tested and found to be fully compatible with each other in the system. Test results are available at www.cavitycomplete.com/testing.
**See actual limited warranty for complete details, requirements and limitations available at www.CavityComplete.com.



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“The building industry has to stop only producing products and to start developing and producing building assembly systems. No one material by itself can provide the functions of air barrier and moisture management. These are the two most critical functions to address. By addressing the functions of a building assembly on a system basis, you will receive something that will work as intended and a building that will perform and be resilient.”

Laverne Dalgleish

Executive Director of the Air Barrier Association of America

“In commercial construction, our customers demand that a Project Team not only have a concern for first cost of cavity wall systems, but also an understanding of and a respect for long term performance costs as well. Specifying, detailing and installing complex cavity wall installations demands a significant, time consuming, multi-disciplinary approach due to the number of individual building elements that must be successfully combined. The CavityComplete™ team has not run from these challenges, but has embraced a solution that systematically addresses water and moisture management, thermal considerations, fire resistance, air transmission and connection detailing. This unified solution is a big step in the right direction for our owners and for the construction industry in general.”

Chris Jahrling

Vice President and General Manager of Turner Federal Services

Ask the experts

“Architects are always looking for ways to improve the performance of their exterior wall assemblies and CavityComplete™ helps make the complicated process more predictable by leveraging the knowledge of multiple product manufacturers. The CavityComplete™ system provides documentation that architects can submit to building officials demonstrating that the assembly meets mandatory building code fire containment, air leakage, water penetration and thermal resistance requirements.”

Mark Kalin

FAIA, FCSI, President of Kalin Associates

It's All in the Wall

The CavityComplete™ Wall System for Steel Stud with Masonry Veneer



EcoTouch® PINK® FIBERGLAS™ Insulation
Faced or Unfaced Batts

Owens Corning™



Dymonic® 100
Polurethane Sealant

Tremco® Incorporated



ExoAir® 230
Vapor-Permeable Air & Weather Barrier Membrane

Tremco® Incorporated



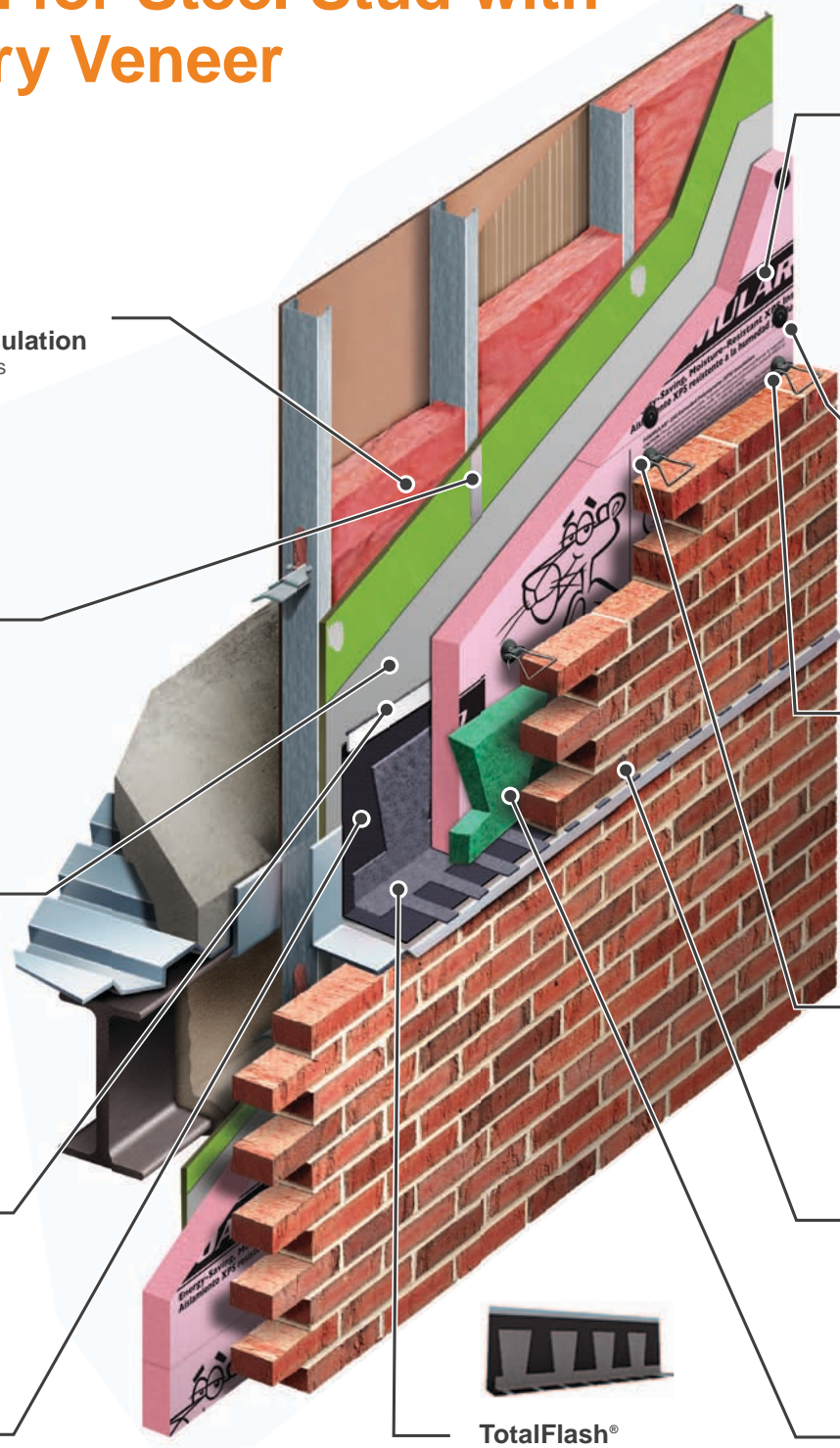
MPE-1
Sealant

Mortar Net Solutions™



ExoAir® TWF
Self-Adhered Thru-Wall Flashing

Tremco® Incorporated



FOAMULAR® 250 Extruded Polystyrene (XPS)
Rigid Foam Insulation

Owens Corning™



Grip-Deck™
Screw with Thermal-Grip® ci Prong Washers

Rodenhouse, Inc.



Pos-I-Tie®
Masonry Veneer Anchoring System, with ThermalClip®

Heckmann Building Products, Inc.



Thermal-Grip®
Brick-Tie Washers

Rodenhouse, Inc.



WeepVent™
Mortar Net Solutions™



MortarNet®
Mortar Droppings Protection

Mortar Net Solutions™



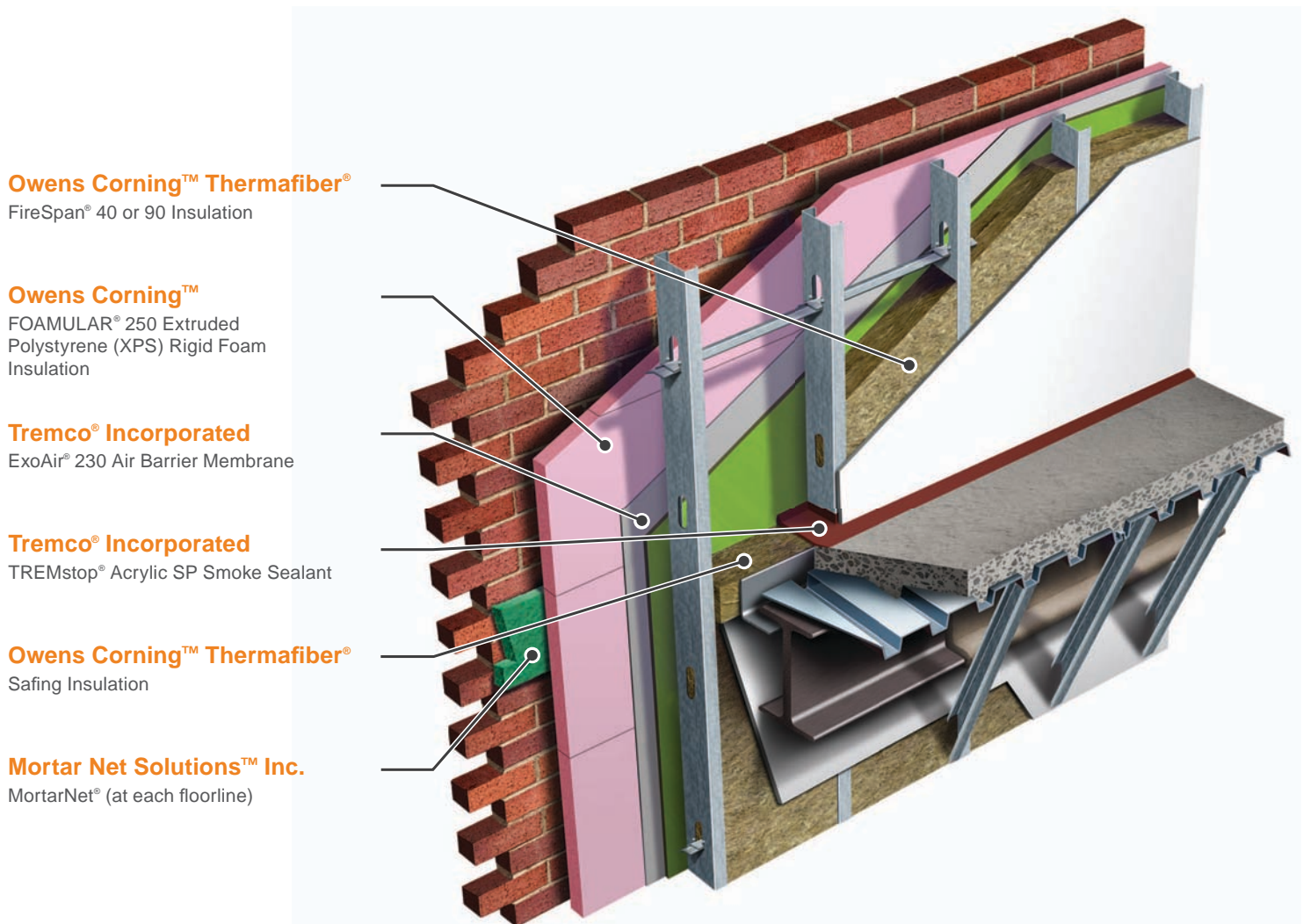
TotalFlash®
Cavity Wall Drainage Solution

Mortar Net Solutions™

The CavityComplete™ Wall System with Thermafiber® Insulation

When the building code requires perimeter fire containment joints, we've got that too with Owens Corning™ Thermafiber® Insulation and Tremco® TREMstop® Acrylic Sealant.

See the CavityComplete™ Wall System technical bulletin regarding fire containment joint design for complete details.



Insulation



Since 1938, Owens Corning has been a market-leading innovator in high-performance building solutions.

FOAMULAR® 250 XPS and EcoTouch® PINK® FIBERGLAS™ Insulation with PureFiber® Technology are proven energy efficient solutions and offer a wide range of advantages for the CavityComplete™ Wall System.

Steel Stud Cavity Insulation



EcoTouch® PINK® FIBERGLAS™

Owens Corning™ EcoTouch® Insulation with PureFiber® Technology is flexible batt insulation with available R-values from 11 to 30. EcoTouch® Insulation is available unfaced for climatic situations where a vapor retarder is not recommended.

Key Features

- With the range of R-values and thicknesses available, EcoTouch® Insulation meets most thermal requirements.
- EcoTouch® Insulation enhances interior noise control.
- EcoTouch® Insulation will not rot or mildew and is noncorrosive to steel, copper, and aluminum.



EcoTouch® Flame Spread 25 Fiberglas™

EcoTouch® Flame Spread 25 Fiberglas™ insulation is a light density, flexible batt, with a factory applied facing that has a flame spread less than 25 to meet code requirements. The product is available in R-values ranging from 11 to 30. The FSK (foil-scrim-kraft) and light-reflective white PSK (polypropylene-scrim-kraft) facings act as vapor retarders, and provide a neat, finished appearance.

Key Features

- With the range of R-values available, Flame Spread 25 insulation meets most thermal requirements.
- Meets building code requirements for types I and II construction or exposed applications.



Thermafiber® FireSpan® 40 or 90

Thermafiber® FireSpan® mineral wool insulation products are designed to provide fire protection in curtain wall and perimeter fire containment systems. These products are noncombustible, moisture-resistant, noncorrosive and non-deteriorating. FireSpan® has a proven history of performance and is listed in fire rated designs in the UL® and Intertek® fire resistance directories. It is used in conjunction with Thermafiber® Safing to achieve outstanding fire containment

Key Features

- Exceptional performance in perimeter fire containment systems.
- Fire resistant to temperatures above 2,000°F (1,093°C)
- Controls noise and sound.

Continuous Insulation



FOAMULAR® 250 Extruded Polystyrene (XPS) Rigid Foam Insulation

Owens Corning™ FOAMULAR® 250 XPS Insulation is an R-5 per inch of thickness, closed cell, moisture-resistant rigid foam board well suited for commercial steel stud continuous insulation applications.

Key Features

- Excellent long-term stable insulating performance at R-5 per inch.
- Exceptional moisture resistance, long-term durability. Will not corrode or support mold growth.
- Limited lifetime warranty* — maintains 90% of R-value and covers all ASTM C578 properties.
- The only XPS foam to be GreenGuard GOLD Certified. UL's certification for people with sensitivities.

* See actual warranty for complete details, limitations, and requirements.

Moisture Management



Since 1992, Mortar Net Solutions™ has been the leader in developing and providing moisture management solutions for masonry.

The MortarNet® mortar dropping collection device has been installed for over 20 years in thousands of walls without a single wall failure. The TotalFlash® Cavity Wall Drainage Solution for the CavityComplete™ Wall System combines a Tremco® ExoAir® TWF membrane with a mortar dropping collection drainage mat, mesh weep tabs, termination bar, and metal drip edge into a single, easy-to-install panel. Together, these two systems offer an unequaled level of moisture management for the CavityComplete™ Wall System.

Cavity Wall Drainage



TotalFlash® Cavity Wall Drainage Solution

TotalFlash® is a complete flashing system for masonry cavity walls that features a Tremco® 40 mm rubberized asphalt membrane with a PVC termination bar, metal drip edge, no-clog drainage mat and weep tabs all attached at the factory. In the CavityComplete™ Wall System, TotalFlash® extends completely through the masonry and air space, extending under and behind the continuous insulation layer and turning up to terminate, providing a secondary drainage plane at the weather barrier.

Key Features

- Available in custom lengths for openings.
- Factory fabricated in 5' long panels for reduced labor time in the field.
- Excellent tensile, elongation, and permeance characteristics.
- Fabricated using Tremco® ExoAir® TWF with high adhesive quality.
- Treated release film for easier installation.
- Puncture resistant, non-removable surface film.
- Membrane available in 12", 18", and 24" widths
- High temp resistance up to 245°F (118°C).



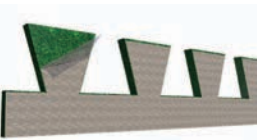
WeepVent™

WeepVent ensures that moisture can migrate out of the cavity and that debris and insects can't enter the weep holes.

Key Features

- 90% open weave polyester mesh allows unobstructed water and air movement.
- Compressible to completely fill weep holes.
- Unique "prickly adhesion" holds WeepVent in place without fasteners or adhesives.

Mortar Dropping Collection



MortarNet® with Insect Barrier™ Mortar Dropping Collection Device

MortarNet helps prevent moisture damage to masonry cavity walls by preventing mortar droppings from blocking the weep holes and by providing hundreds of clear drainage pathways that allow moisture to flow to the weeps.

Key Features

- Breaks up and suspends mortar droppings above the flashing on two levels so weeps stay open.
- 90% open weave mesh construction provides hundreds of pathways for moisture to exit the cavity.
- Insect Barrier helps prevent wall damage and health hazards from insect infestations.
- Is very permeable to air, water and water vapor due to the low fiber density of the non-woven structure.
- Helps prevent efflorescence, damage from freeze-thaw cycles and mold growth.
- Easy to transport, handle and cut, even on scaffolding
- Recycled content may help with LEED® certification.



MPE-1 Sealant

MPE-1 Sealant is a high performance, single component formulation for use in interior and exterior masonry construction.

Key Features

- Provides excellent adhesion and sealing.
- Qualifies as a LEED® low emitting product with low volatile organic compounds (VOC).

Air & Weather Barrier Membrane



Tremco® Commercial Sealants & Waterproofing (CS&W) is North America's foremost supplier of sealant, weatherproofing, and passive fire control solutions for commercial and residential construction and industrial applications. For generations, Tremco® CS&W has successfully provided products and services to architects, engineers, home builders, contractors and building owners worldwide. When it comes to protecting and weatherproofing the entire building envelope, Tremco® CS&W is uniquely positioned to provide single-source products, services and solutions.

As key components of the CavityComplete™ Wall System, the Tremco® Dymonic® 100, ExoAir® 230, ExoAir® TWF, TREMstop® Acrylic SP, along with the other partner products, are designed and installed in order to perform as a system to protect the inner structure against air and water intrusion and provide passive fire protection.

Vapor-Permeable Weather Barrier



ExoAir® 230 Vapor-Permeable Weather Barrier

ExoAir® 230 is a fluid-applied synthetic vapor-permeable weather barrier designed for use in commercial construction applications. It can be either roller or spray applied to common substrates. It may also be used as a liquid-applied window flashing, enabling the contractor to address both the membrane and window flashing with a single material.

Key Features

- UV Resistance allows the membrane to be exposed during the construction process.
- Withstands temperatures up to 240°F.
- ExoAir® 230 has passed testing as a component in CavityComplete™ in a number of standard test methods, including: ASTM E119, ASTM E2357, ASTM E331, ASTM E2307, NFPA 285.

Joint Sealant



Dymonic® 100 Polyurethane Sealant

Dymonic® 100 is a high performance, medium-modulus, low-VOC, UV-stable, non-sag polyurethane sealant. Formulated with an innovative polymer technology, Dymonic® 100 is a highly versatile sealant that far surpasses the movement capability of competitive products and has the unique ability to adhere to damp and green concrete.

Key Features

- Dymonic® 100 has a skin time of 2 hours with a tack-free time of 6-8 hours to significantly reduce dirt pickup.
- Movement capability of +100/-50% in typical field conditions.
- Paintable and will not crack, craze or yellow under extreme UV exposure.



ExoAir® TWF (Thru-Wall Flashing)

ExoAir® TWF is a composite sheet designed for use as a thru-wall flashing composed of 32 mils of self-adhering SBS rubberized asphalt laminated to an 8 mil cross-laminated, high density polyethylene film with a silicones release liner. ExoAir® TWF provides protection against potential damage that could occur during building façade installation, keeping the membrane intact.

Key Features

- Seals around penetrations and transitions, promoting air tight seal.
- Fully compatible with the Dymonic® 100 sealant and ExoAir® 230.
- Durable 8 mil HDPE/32 mils of rubberized asphalt for thru wall flashing applications.



Sprayable Acrylic Latex Sealant

TREMstop® Acrylic Spray is a sprayable single-component, water based acrylic firestop sealant for use in fire-rated joints and through-penetrations. TREMstop® Acrylic SP is for use on metal pipe (Canada only), static joints and dynamic joints in fire-rated concrete, wood floor/ceiling and gypsum wall assemblies and the CavityComplete™ Wall System perimeter fire containment joint.

Key Features

- High performance, anti-fungal sealant.
- Capable of +/- 25 percent movement in a fire-rated joint.
- Available in gun-grade and can be painted once fully cured.
- Can also be used to restore the STC of sound-rated assemblies.



Heckmann Building Products, Inc., has provided the construction industry with masonry anchors and ties since 1923. The Pos-I-Tie® Veneer Anchoring system is one of the most recognized and specified anchoring systems available today.

Veneer Anchoring System

Pos-I-Tie® Veneer Anchoring System with ThermalClip®

The Pos-I-Tie® is a three piece system incorporating a Barrel-Screw, a thermal break clip and a veneer wire tie for attaching brick and stone veneers to various backups. For the CavityComplete™ Wall System with steel stud backup, continuous insulation and gypsum board, the screw penetrates the insulation and gypsum, screws into the backup, and seals the hole, preventing moisture penetration with an EPDM washer. The barrel makes a positive contact with the steel stud backup wall, transferring all compression and tension loads between the backup wall and the veneer. Wire ties are available in Hotdip Galvanized After Fabrication or Type 304 Stainless Steel.

Key Features

- Pos-I-Tie® Barrel-Screw, ThermalClip®, and wire ties are highly corrosion resistant.
- ThermalClip® proprietary composite material creates a thermal break between the wire tie and the Pos-I-Tie® Barrel Screw. The clip is extremely tolerant of freeze/thaw conditions and mortar alkalines.
- ThermalClip® creates a dissimilar metals break, allowing the use of Stainless Steel Ties or Stone Anchors with the Original Pos-I-Tie® Barrel Screw.



Rodenhouse, Inc., was established in 1993 and is one of the industry leading manufacturers of innovative fastening systems for exterior building envelopes and facades. The line of Thermal-Grip® washers and Grip-Deck® screws is a great solution for attaching rigid insulation easily and effectively.

Brick Tie Washer

Thermal-Grip® ci Prong Washers with Grip-Deck® screws

Thermal-Grip® ci Prong Washers and Grip-Deck® screws are used to initially secure FOAMULAR® XPS rigid continuous insulation to the wall. The prong features enable pre-spotting of the washers on the insulation for fast on-the-wall screw assembly. The solid cap designed 2" diameter Thermal-Grip® ci Prong Washer not only seals the penetration, but it also provides stress distribution around the screw head to provide exceptional blow off resistance. Tools are available for rapid installation.

Key Features

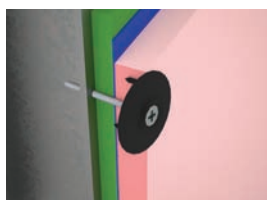
- Large 2" diameter washer for exceptional wind-loading resistance helps prevent blow-offs.
- Solid cap washer clamps down on insulation sealing the penetration against moisture and air infiltration.
- Screws are coated for premium corrosion protection.

Thermal-Grip® Brick-Tie washers

Thermal-Grip® Brick-Tie Washers are used with Pos-I-Tie® anchors to permanently secure FOAMULAR® XPS rigid continuous insulation in brick veneer cavity wall applications. The prong features enable pre-spotting of the washers on the insulation for fast on-the-wall anchor placement. The 2" diameter Thermal-Grip® ci Prong Washer not only seals the penetration, but it also provides stress distribution around the screw head to provide exceptional blow off resistance.











Key Features

- Large 2" diameter washer for exceptional wind-loading resistance helps prevent blow-offs.
- Saves labor time by combining two installation steps into one (eliminates need for full attachment with screws and washers).
- Washer clamps down on insulation sealing the penetration against moisture and air infiltration.



Complete Testing

When evaluating a wall system, it's not enough to look at tests of individual components. A true wall system must have test results proving the individual components perform together as well as separately. The companies behind the CavityComplete™ Wall System have conducted extensive industry testing and have proven that all components perform as a system that meets or exceeds industry standards.

	NFPA 285	ASTM E119	ASTM E331	ASTM E2307	ASTM E2357
Test Symbol					
Test Description	Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components	Standard Test Methods for Fire Tests of Building Construction and Materials (Timed Fire Resistance)	Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference	Standard Test Method for Determining Fire Resistance of Perimeter Fire Barriers Using Intermediate-Scale, Multi-story Test Apparatus	Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
CavityComplete™ Compliance Status					



NFPA Standards

The International Building Code requires wall assemblies in types I through IV construction to comply with NFPA 285. It is a standardized fire test procedure for evaluating the performance of exterior, non-load bearing wall assemblies and panels that are constructed using combustible materials or that incorporate combustible components for installation on buildings where the exterior walls are required to be non-combustible. The CavityComplete™ Wall System has been tested as a unified system to meet NFPA 285 standards.



ASTM Standards

The International Building Code references multiple ASTM standards that exterior wall systems must meet. It is critical that the architect for any wall system have data readily available that demonstrates that the wall system being specified meets current building codes and testing standards. The CavityComplete™ Wall System has been tested to meet all the necessary ASTM standards for fire, water leakage, and air leakage testing.

Complete Warranty

The CavityComplete™ Wall System Warranty is the only wall system warranty in the industry that covers all the components of the system from multiple manufacturers, not just individual components.

It provides you with a single point of contact, and provides the peace of mind no other warranty can offer.

Warranty Details

The CavityComplete™ Wall System for Steel Stud and Masonry Veneer has a 10-year limited material and replacement warranty covered by the CavityComplete™ Wall Systems manufacturer group which consists of Owens Corning Sales, LLC, Tremco® Incorporated, Mortar Net Solutions,™ Heckmann Building Products, Inc. and Rodenhouse, Inc.

To complete the process for the CavityComplete™ Wall System for Steel Stud with Masonry Veneer 10-year limited material and replacement warranty, the following must be completed:

1. Submit a Project Profile at least two (2) weeks prior to beginning wall system construction, and receive a return acceptance.
2. Submit a Project Completion Notice upon completion of work.
3. Receive a written CavityComplete™ Wall System for Steel Stud with Masonry Veneer 10-year limited material and replacement warranty.

For complete details, limitations and requirements about the warranty process and to print the necessary forms, visit www.CavityComplete.com.





Owens Corning Sales, LLC.

www.owenscorning.com
1-800-GET-PINK®



**Heckmann Building
Products, Inc.**

www.heckmannanchors.com
1-800-621-4140



Mortar Net Solutions™

www.mortarnet.com
1-800-664-6638



Rodenhouse, Inc.

www.rodenhouse-inc.com
616-454-3100



Tremco® Incorporated

www.tremcosealants.com
1-800-321-7906