

# Protection for all six sides

Water, air and thermal solutions for building & construction





# Contents

[Protection for all six sides](#)

[Foundation and slab](#)

[Exterior walls](#)

[Wall systems](#)

[Interior walls](#)

[Fenestrations and openings](#)

[Transitions](#)

[Roofing](#)

[DuPont™ Tyvek® fluid-applied and weather-resistive barrier products](#)

[DuPont™ Styrofoam™ Brand Extruded Polystyrene \(XPS\) Insulation products](#)

[DuPont™ Thermax™ Brand Insulation products and DuPont™ Tuff-R™ Commercial Insulation](#)

[DuPont™ ArmorWall Plus Fire-Rated Structural Insulated Sheathing™ products](#)

[DuPont™ LiquidArmor™ Flashing materials](#)

[DuPont™ Froth-Pak™ Foam Insulation](#)

[Polyurethane foam sealants and adhesives](#)

[Self-adhered flashing products](#)



# Better buildings start with better construction technology

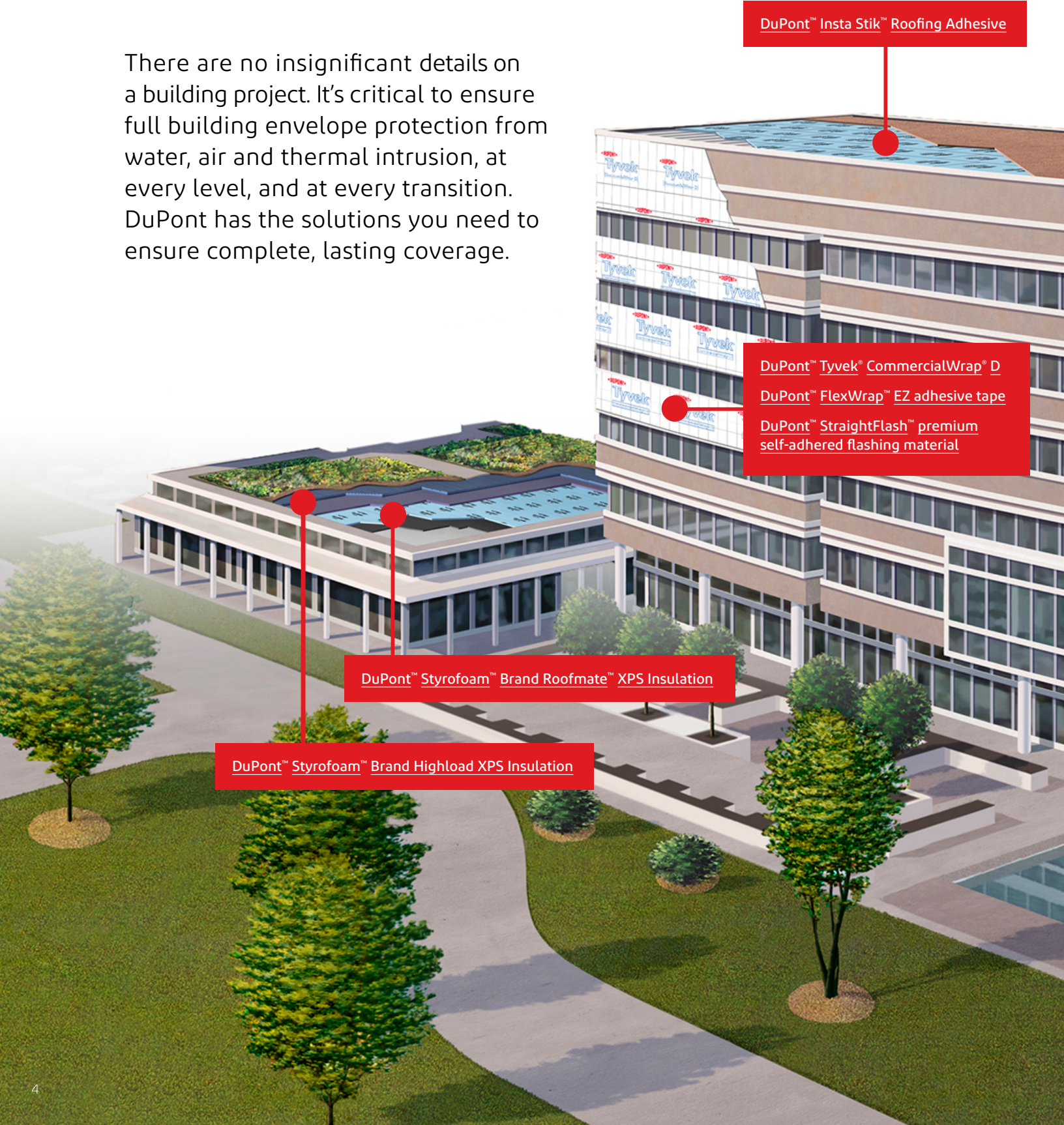
**The future of building begins now**, and DuPont Performance Building Solutions is committed to being in step with where the construction industry is going. Our robust portfolio of proven and compatible products brings together decades of technology, expertise and innovation to provide water, air and thermal protection for all six sides of your building envelope.

And it's all backed by the expertise of building science leaders who are dedicated to your success and warranties from a name you trust. Protecting all six sides of your building, from foundation to walls to roof and the transitions in between, is our commitment to you.



# Protection for all six sides

There are no insignificant details on a building project. It's critical to ensure full building envelope protection from water, air and thermal intrusion, at every level, and at every transition. DuPont has the solutions you need to ensure complete, lasting coverage.



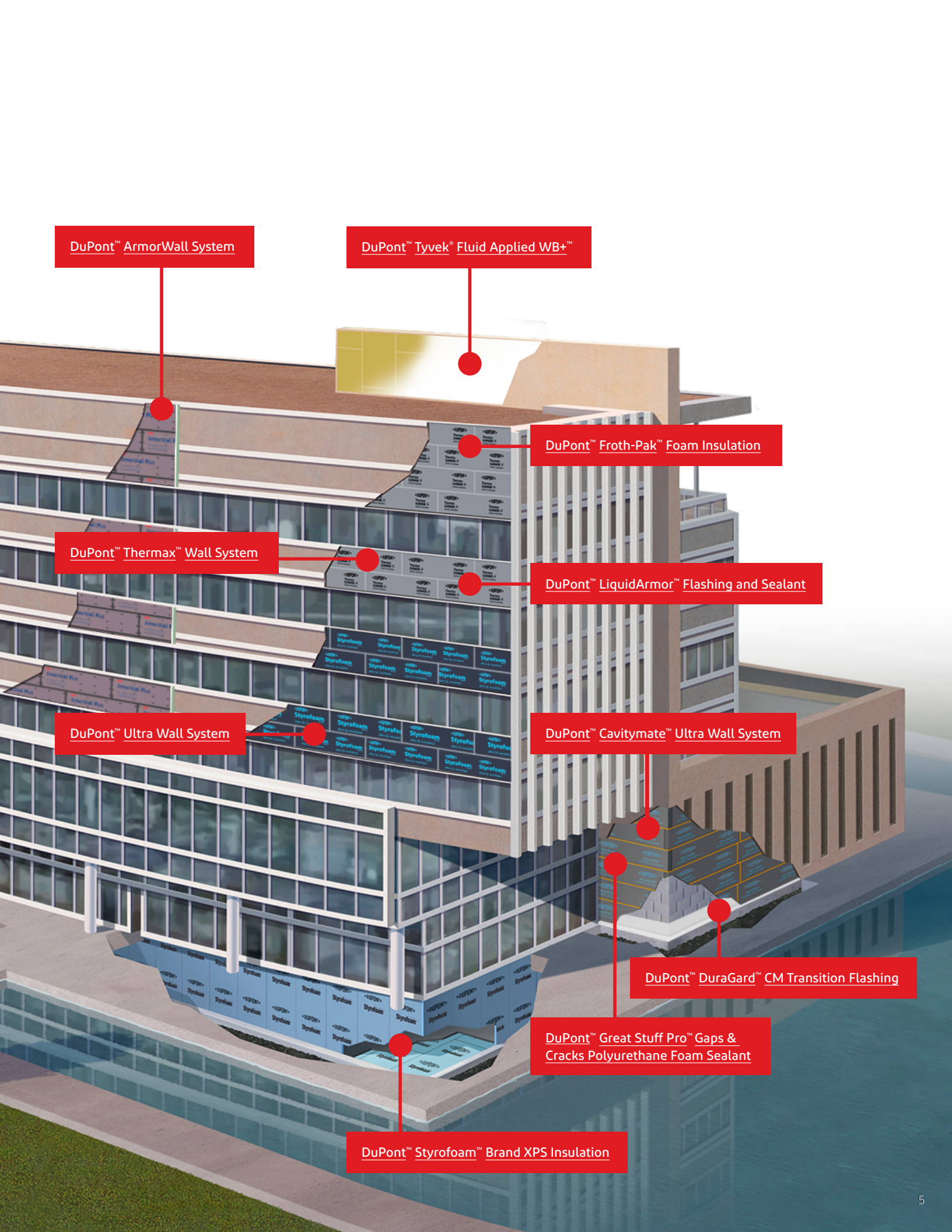
DuPont™ Insta Stik™ Roofing Adhesive

DuPont™ Tyvek® CommercialWrap® D  
DuPont™ FlexWrap™ EZ adhesive tape  
DuPont™ StraightFlash™ premium self-adhered flashing material

DuPont™ Styrofoam™ Brand Roofmate™ XPS Insulation

DuPont™ Styrofoam™ Brand Highload XPS Insulation





DuPont™ ArmorWall System

DuPont™ Tyvek® Fluid Applied WB+™

DuPont™ Froth-Pak™ Foam Insulation

DuPont™ Thermax™ Wall System

DuPont™ LiquidArmor™ Flashing and Sealant

DuPont™ Ultra Wall System

DuPont™ Cavymate™ Ultra Wall System

DuPont™ DuraGard™ CM Transition Flashing

DuPont™ Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant

DuPont™ Styrofoam™ Brand XPS Insulation



Energy-efficient structures are built from the ground up

# Foundation and slab



DuPont's science-based insulation materials are durable and easy to install, making them ideal for slab foundations and interior and exterior below-grade walls.



## DuPont™ Styrofoam™ Brand Perimate™ Extruded Polystyrene Insulation

**R-value 5.0/inch**

- Sturdy, moisture-resistant foam board insulation for exterior foundations
- Covered with patented dovetail grooves on one face to channel water down to footing drains or weeping tiles
- Manufactured with shiplap edges on the long edges



## DuPont™ Styrofoam™ Brand Square Edge Insulation

**R-value 5.0/inch**

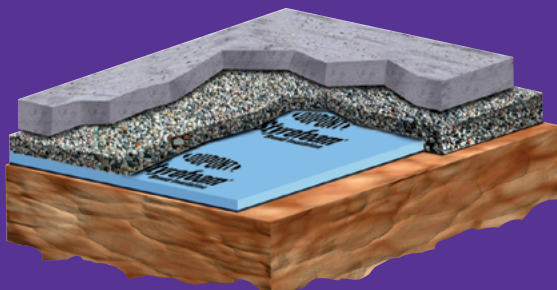
- Water-resistant insulation for foundations and crawlspaces
- Minimum compressive strength of 25 psi and a flexural strength of 50 psi
- Designed to ensure energy efficiency and minimize onsite cutting and waste



## DuPont™ Styrofoam™ Brand Highload 40, 60 and 100 Extruded Polystyrene Insulation

**R-value 5.0/inch**

- Tough, versatile insulation for commercial high-load, low-temperature and geotechnical applications
- Superior resistance to water absorption, water vapor transmission and freeze/thaw cycling
- Long-term compressive strength in load-bearing applications
- Exceptional R-value retention
- Resists compressive creep and fatigue





## Advantages of insulating the exterior of foundation walls



### Thermal bridging

A block or concrete wall insulated on the exterior surface is not subjected to large temperature differences, so it will not act as a thermal bridge.

### Temperature fluctuations

Block walls insulated on the exterior undergo less air convection in block cavities. At nearly room temperature, the basement walls act as a heat reservoir, buffering interior temperature fluctuations. In some instances, adfreezing forces are prevented from acting directly on the basement wall.

### Living space

Unlike interior insulation applications, no usable space is lost.

### DuPont™ Styrofoam™ Brand XPS Insulation – the performance choice

DuPont™ Styrofoam™ Brand XPS Insulation products from DuPont have unique properties that enable them to outperform other products in exterior foundation insulation applications.

**Uninsulated, conditioned below-grade walls can account for up to 50% of total heat loss in an otherwise tightly sealed, well-insulated structure<sup>(1)</sup>**

<sup>(1)</sup>Report, Kansas State University and the U.S. Department of Energy.



Systemic solutions for complete building envelope protection

# Exterior walls



Exterior wall solutions from DuPont provide a systematic approach that works for your entire building envelope. Innovative, yet easy-to-install, our exterior insulation systems and sealants help architects and contractors deliver high-performance buildings.

## DuPont™ Styrofoam™ Brand Cavitymate™ Extruded Polystyrene Insulation

R-value 5.0/inch

- Moisture-resistant, durable and lightweight
- Extruded polystyrene foam board specifically designed for use in wet cavity wall environments in commercial applications



## DuPont™ Thermax™ XARMOR™ (ci) Exterior Insulation

- Optimized for use behind rainscreen exteriors
- Toughest insulation available for the DuPont™ Thermax™ Wall System
- 4.0-mil embossed exterior foil facer provides durability and long-term performance



## DuPont™ Thermax™ Sheathing foam insulation

- Engineered for concealed and exposed applications
- A nonstructural rigid board material consisting of a fiberglass-infused foam core that helps improve fire performance and dimensional stability



## DuPont™ Tyvek® CommercialWrap®

- Engineered to provide excellent performance as a weather barrier
- 270 days of UV resistance delivers added strength and durability needed in commercial construction
- Provides weather protection, air and moisture management, and energy savings



## DuPont™ Tyvek® CommercialWrap® D

- Premium, durable weather barrier
- Specially engineered surface texture for superior water drainage
- High tear and wind-load resistance
- 270 days of UV resistance
- Provides weather protection, air and moisture management, and energy savings



## DuPont™ Tyvek® Fluid Applied WB+™

High vapor permeability (22 perm @ 25 mil)

- Fluid-applied weather barrier solution with excellent low-temperature crack-bridging
- 300% elongation and 99% recovery
- Fast rain resistance; tack-free in 2 hours
- 99% solids content for single-coat coverage with less pinholing
- 2-3 times the coverage of other fluid-applied WRBs when used at recommended application thickness







## The most environmentally sustainable building in Virginia

### Wall systems

More than just products, DuPont offers fully integrated wall systems that leverage our proven technologies, compatible materials and construction expertise, all backed by industry-leading warranties.



The Chesapeake Bay Foundation's Brock Environmental Center



#### DuPont™ ArmorWall Systems

DuPont™ ArmorWall Systems incorporate five traditional building enclosure elements into a composite panel product: structural sheathing, fire resistance, air barrier, water-resistive barrier and a high-performance continuous insulation layer.

- 1- and 2-hour fire-rated, NFPA 285-passing assemblies<sup>(1)</sup>
- Structural capabilities including high-strength structural sheathing<sup>(2)</sup> and cladding attachment support
- High-performance continuous insulation
- High-quality air- and water-resistive barrier



#### DuPont™ Commercial Wall<sup>2</sup>

The Power of Two brings together trusted DuPont™ Tyvek® materials with DuPont™ Styrofoam™ Brand XPS Insulation and DuPont™ Thermax™ Brand Insulation products to create high-performance wall assemblies.

- Wide portfolio enables flexibility to choose the right assembly for the job – including wrap over foam, WRB under foam and inverted wall assemblies
- Assemblies are tested above and beyond code requirements for exceptional water holdout, air holdout and thermal performance
- Industry-leading system warranty includes product and labor



#### DuPont™ Thermax™ Wall System

- Features DuPont™ Thermax™ Brand Insulation with DuPont™ LiquidArmor™ Flashing and Sealant for enhanced warranty protection in Gold, Silver and Bronze levels

#### DuPont™ Cavitymate™ Ultra Wall System

- Features DuPont™ Styrofoam™ Brand Cavitymate™ Ultra XPS Insulation and DuPont™ Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant

### Goal

Set the standard for enduring, sustainable construction by achieving LEED® Platinum and Living Building Challenge™ certification. Be the first building in the state to embrace a net-zero energy and net-zero water approach.

### Challenges

The site is in a coastal floodplain located in an area prone to intense storms, hurricanes and high humidity. What's more, the building's design features complicated geometries intended to take advantage of seasonal breezes and to limit sunlight penetration in summer while maximizing it in winter.

### Solution

Protect the new wall assembly with the DuPont™ Tyvek® Fluid Applied System – a complete, integrated weather barrier system designed to perform in any climate and under a wide variety of commercial façades.

<sup>(1)</sup>DuPont™ ArmorWall Plus FR SIS™ passes NFPA 285 testing without the additive protection of an exterior cladding on the front for the full duration of the test. This allows engineering judgments to be made for most NFPA 285-tested-and-approved exterior finishes when used with DuPont™ ArmorWall Plus FR SIS™ as part of a complete wall assembly. Refer to [ArmorWall.DuPont.com](http://ArmorWall.DuPont.com) for details.

<sup>(2)</sup>With its ability to move the stud face to the exterior face of the sheathing, DuPont™ ArmorWall Plus FR SIS™ has been tested to support loads equivalent to most building cladding finishes, with minimal creep while under load. Refer to [ArmorWall.DuPont.com](http://ArmorWall.DuPont.com) for attachment guidance.

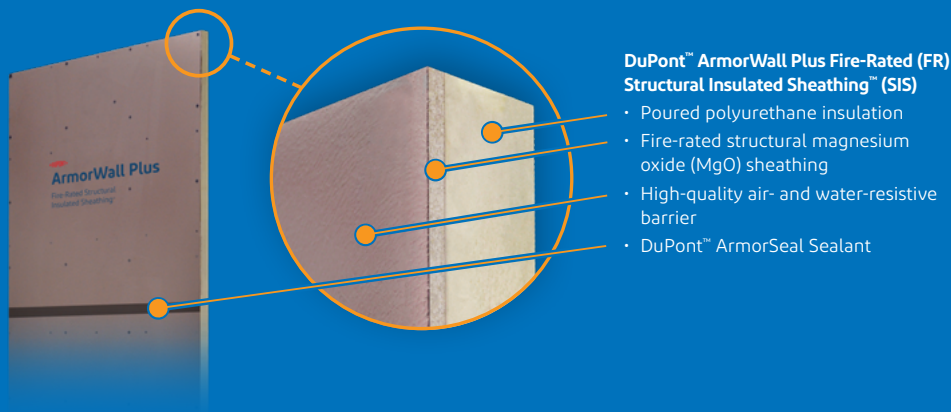
Integrated insulation and barrier solutions

# Wall systems



Rigid foam insulation coupled with innovative barrier sealing and flashing technologies helps your building perform more efficiently. These commercial wall systems offer excellent long-term thermal performance, ease of use, moisture resistance and – in some situations – reusability.

## 5-in-1 composite panel fire-rated (FR) structural insulated sheathing (SIS) with integrated air and water barrier



### DuPont™ ArmorWall Plus Fire-Rated (FR) Structural Insulated Sheathing™ (SIS)

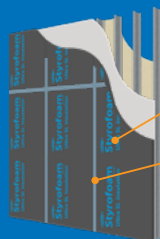
- Poured polyurethane insulation
- Fire-rated structural magnesium oxide (MgO) sheathing
- High-quality air- and water-resistive barrier
- DuPont™ ArmorSeal Sealant

## 3-in-1 single-layer high-performance rigid insulation air and water barrier systems



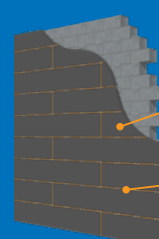
### DuPont™ Thermax™ Wall System (TWS)

- DuPont™ Thermax™ XARMOR™ (ci) Exterior Insulation
- Choice of DuPont™ LiquidArmor™ QS, CM or LT Flashing and Sealant



### DuPont™ Ultra SL Wall System (on steel stud)

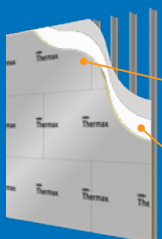
- DuPont™ Styrofoam™ Brand Ultra SL XPS Foam Insulation
- Choice of DuPont™ LiquidArmor™ QS, CM or LT Flashing and Sealant



### DuPont™ Cavitymate™ Ultra Wall System (on CMU)

- DuPont™ Styrofoam™ Brand Cavitymate™ Ultra XPS Insulation
- DuPont™ Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant

## Multilayer rigid insulation air and water barrier assemblies – DuPont™ Commercial Wall<sup>2</sup> System



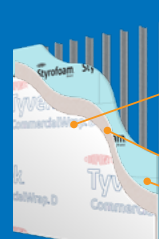
### Tyvek® WRB Under Exterior CI

- DuPont™ Styrofoam™ Brand XPS Insulation or DuPont™ Thermax™ Brand Insulation
- DuPont™ Tyvek® Fluid Applied WB+™ or DuPont™ Tyvek® CommercialWrap® or CommercialWrap® D



### Tyvek® WRB Over Exterior CI

- DuPont™ Tyvek® CommercialWrap® or CommercialWrap® D
- DuPont™ Styrofoam™ Brand XPS Insulation or DuPont™ Thermax™ Brand Insulation



### Inverted Wall

- DuPont™ Tyvek® Fluid Applied WB+™ or DuPont™ Tyvek® CommercialWrap® or CommercialWrap® D
- Exterior gypsum
- DuPont™ Styrofoam™ Brand XPS Insulation or DuPont™ Thermax™ Brand Insulation



Learn more at  
[building.dupont.com/warranties](http://building.dupont.com/warranties)



## Wall system overcomes winter construction challenges



### Goal

Keep construction of The Headlands International Dark Sky Park's new visitor center and observation tower on schedule as weather conditions threatened progress.

### Challenge

Spray foam insulation – ideal for rounded structures – was specified for the tower. However, continuing high winds, cold temperatures, rain and snow made it impossible to apply.

### Solution

Apply the DuPont™ Cavitymate™ Ultra Wall System to the entire structure. The system, which combines moisture protection and thermal performance in one integrated package, consists of DuPont™ Styrofoam™ Brand Cavitymate™ Ultra XPS Insulation – continuous rigid insulation with an integrated water barrier – and DuPont™ Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant – an insulating sealant for use on seams and penetrations.

Simply changing the orientation of the insulation panels from horizontal to vertical enabled them to conform to the curved wall of the tower – a creative, high-performance fix that put the project back on schedule.

## Wall systems backed by industry-leading warranties

System	Warranty term	Warranty coverage
<b>DuPont™ Thermax™ Wall System</b>		
<b>DuPont™ Thermax™ Wall System</b> <b>GOLD</b> DuPont™ Thermax XARMOR™ (ci) Exterior Insulation used with choice of DuPont™ LiquidArmor™ QS, CM, or LT Flashing and Sealant or DuPont™ DuraGard™ CM Transition Flashing	20-year product & labor 15-year system with labor 6-month product	Thermal Water Exposure
<b>DuPont™ Thermax™ Wall System</b> <b>SILVER</b> DuPont™ Thermax™ (ci) Exterior Insulation used with choice of DuPont™ LiquidArmor™ QS, CM, or LT Flashing and Sealant or DuPont™ DuraGard™ CM Transition Flashing	20-year product & labor 10-year system with labor 6-month product	Thermal Water Exposure
<b>DuPont™ Thermax™ Wall System</b> <b>BRONZE</b> DuPont™ Thermax™ Sheathing used with choice of DuPont™ LiquidArmor™ QS, CM, or LT Flashing and Sealant or DuPont™ DuraGard™ CM Transition Flashing	20-year product & labor 5-year system with labor 3-month product	Thermal Water Exposure
<b>DuPont™ ArmorWall System</b>		
DuPont™ ArmorWall Plus Fire-Rated SIS™ or DuPont™ ArmorWall SP Plus Fire-Rated SIS™ used with DuPont™ ArmorSeal Sealant and approved fasteners	10-year limited warranty	Product
<b>DuPont™ Commercial Wall<sup>2</sup> System</b>		
<b>Wrap Under Exterior CI</b> DuPont™ Tyvek® CommercialWrap® or CommercialWrap® D installed UNDER DuPont™ Styrofoam™ Brand XPS Insulation or DuPont™ Thermax™ Brand Insulation	10-year product <sup>(1)</sup> & labor	Air Water Thermal
<b>Wrap Over Exterior CI</b> DuPont™ Tyvek® CommercialWrap® or CommercialWrap® D installed OVER DuPont™ Styrofoam™ Brand XPS Insulation or DuPont™ Thermax™ Brand Insulation	10-year product <sup>(1)</sup> & labor	Air Water Thermal
<b>Inverted Wall</b> DuPont™ Tyvek® CommercialWrap® or CommercialWrap® D or DuPont™ Tyvek® Fluid Applied WB+™ installed on exterior gypsum OVER DuPont™ Styrofoam™ Brand XPS Insulation or DuPont™ Thermax™ Brand Insulation	10-year product <sup>(1)</sup> & labor	Air Water Thermal
<b>Fluid Applied Under CI</b> DuPont™ Tyvek® Fluid Applied WB+™ installed UNDER DuPont™ Styrofoam™ Brand XPS Insulation or DuPont™ Thermax™ Brand Insulation	10-year product <sup>(1)</sup> & labor	Air Water Thermal
<b>DuPont™ Tyvek® CommercialWrap® Quality Assurance Warranty<sup>(2)</sup></b>		
DuPont™ Tyvek® CommercialWrap® or CommercialWrap® D installed with DuPont™ Self-Adhered Flashing	15-year product & labor	Air Water

<sup>(1)</sup>Product warranty information is available at [www.dupont.com/knowledge/construction-warranties.html](http://www.dupont.com/knowledge/construction-warranties.html).

<sup>(2)</sup>Available for eligible DuPont Building Knowledge Center Quality Assurance Program participants.

Integrated protection from the inside out

# Interior walls



Eliminate air leakage and increase thermal performance with well-integrated systems of insulation and weatherization solutions from DuPont.

## Interior insulation solutions

*Continuous building insulation that is easy to cut, handle and install; covers entire wall surfaces; and reduces the potential for condensation within the wall assembly.*

### DuPont™ Thermax™ White Finish (WF) NH (Non-Halogen) Insulation

- Easy-to-install continuous insulation
- Features an easy-to-clean white embossed surface
- Combines high R-value with dimensional stability and moisture resistance
- Halogen-free with [Declare Label](#)



### DuPont™ Thermax™ Heavy Duty Insulation

- Insulation and interior finish system for walls and ceilings
- High durability in difficult conditions – stands up to the elements with a fiberglass core and thermoset-coated aluminum facing
- FM 4880-compliant



### DuPont™ Thermax™ Light Duty NH (Non-Halogen) Insulation

- Continuous insulation
- Fiberglass-reinforced foam core
- Long-term thermal resistance
- Facing prevents water and water vapor intrusion
- Halogen-free with [Declare Label](#)



## Air-sealing insulating foam sealants

*Quick, convenient solutions for effectively blocking air leaks, dirt, moisture, allergens and pests.*

### DuPont™ Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant

- Ideal for gaps and penetrations up to 3"
- Recognized as a fireblock sealant
- Airtight, water-resistant seal



### DuPont™ Great Stuff Pro™ Gasket

- Low expansion to seal gaps without bowing or bending frame
- Bonds to vinyl, wood and metal frames
- Airtight, water-resistant seal



### DuPont™ Enerfoam™ Professional Foam Sealant

- Flexible foam sealant bonds to most building substrates to seal cracks and voids
- Minimally expanding for effective, airtight seal
- Fireblock rating (U.S.)
- Water-resistant seal

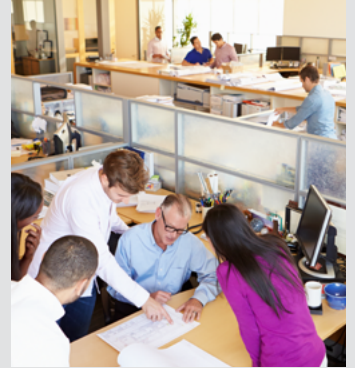


**DuPont™ Styrofoam™ Brand XPS Insulation, DuPont™ Thermax Brand Insulation and DuPont™ Froth-Pak™ Foam Insulation are low-emitting materials<sup>(1)</sup>**





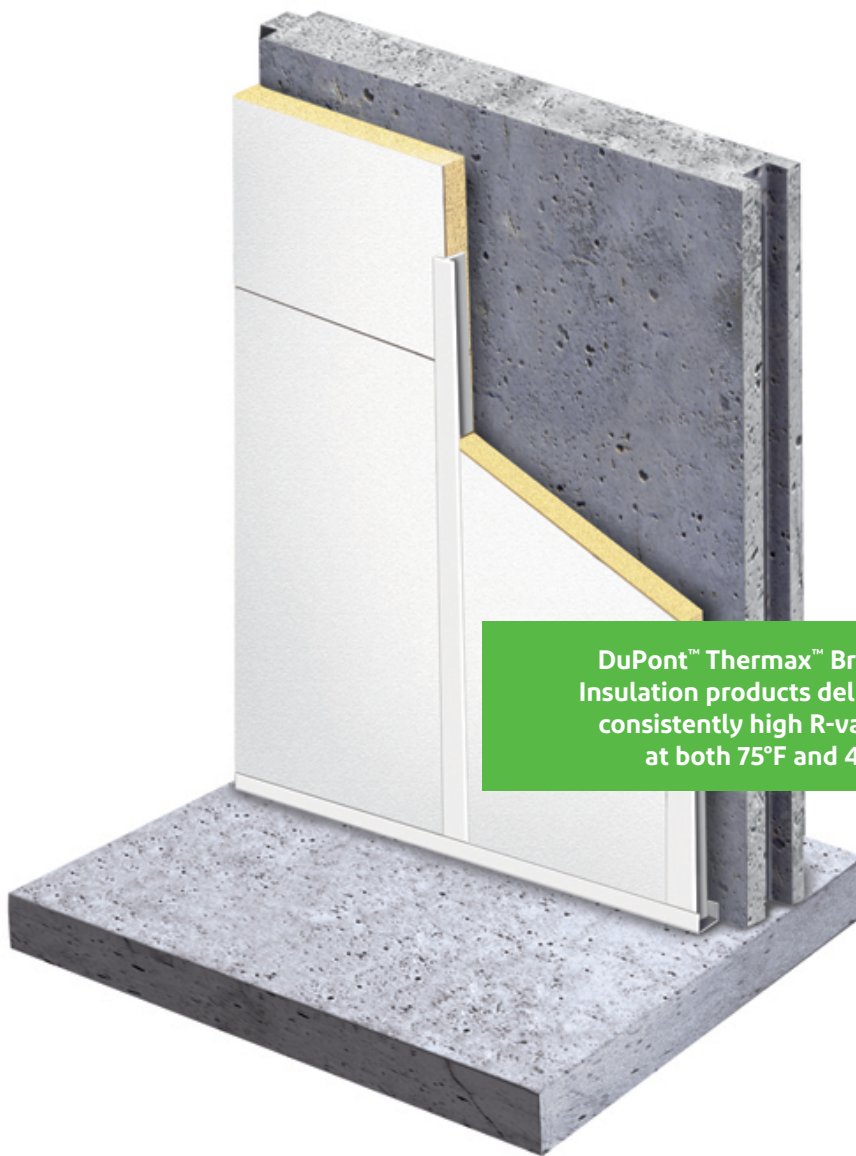
## Smart building design for offices



According to researchers at Harvard University and Syracuse University, people who work in well-ventilated offices with below-average levels of indoor pollutants and carbon dioxide have significantly higher cognitive functioning scores in crucial areas – such as responding to a crisis or developing strategy – than those who work in offices with typical levels.

Ways designers can improve employee productivity and performance through more sustainable design include:

- 1. Ensure building enclosures are airtight.** Employing moisture-resistant continuous insulation along with air sealing minimizes moisture intrusion, improving indoor air quality and reducing the potential for rot and mildew.
- 2. Meet or exceed minimum R-values.** Better R-values correlate with improved occupant comfort.
- 3. Build for productivity and efficiency.** Efficient buildings with improved air quality and other comforts benefit people, the planet and profitability.



DuPont™ Thermax™ Brand Insulation products deliver consistently high R-value at both 75°F and 40°F



### Boards and sheathing

*Nonstructural rigid board materials with a fiberglass-infused foam core that helps improve fire performance and dimensional stability.*



#### DuPont™ Thermax™ Metal Building Board

- Ideal for metal structures as well as standing-seam metal roofs
- Interior finish system that provides insulation with long-term R-value
- Listed in 1-, 2-, 3- and 4-hour UL fire-rated wall assemblies.
- 1.25-mil embossed aluminum facers on both sides
- Low perm rating to help prevent water and water vapor intrusion



#### DuPont™ Thermax™ Sheathing foam insulation

- Engineered for both concealed and exposed applications
- Nonstructural rigid board material
- Fiberglass-infused foam core helps improve fire performance and dimensional stability



Insulating and sealing for windows, doors and penetrations

# Fenestrations and openings



Enhance the long-term performance of your building's openings. Prevent air leaks and moisture infiltration around the rough openings of windows, doors and other penetrations with insulation and weatherization solutions from DuPont.

## DuPont™ FlexWrap™ EZ adhesive tape

- Versatile self-adhered flashing for nonflanged objects
- Flexible, easy-to-apply adhesive tape
- Stops small air leaks that diminish a structure's energy efficiency and durability
- Withstands up to 270 days of UV exposure



## DuPont™ StraightFlash™ premium self-adhered flashing material

- Ideal for helping to protect heads and jambs of windows and doors
- Protects vulnerable areas between the fenestration and the water-resistive barrier often subject to potential water damage
- Superior durability – tear-resistant and withstands up to 270 days of UV exposure
- Excellent adhesion
- Performs through extreme temperatures



## DuPont™ LiquidArmor™ Flashing and Sealant

- Spans up to ¼" gap
- Available in three formulations to meet your exact needs:

### DuPont™ LiquidArmor™ QS Flashing and Sealant

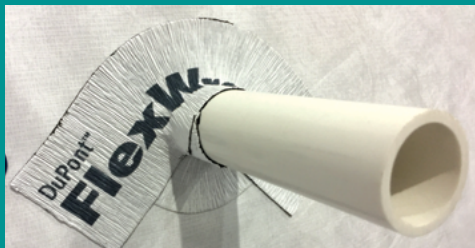
- Acrylic-based
- Spray- or brush-applied
- Dries to touch in 1-4 hours; rain-resistant in ~5 hours
- Meets AAMA 714

### DuPont™ LiquidArmor™ CM Flashing and Sealant

- Acrylic-based
- Spray- or brush-applied
- Dries to touch in 1-4 hours; rain-resistant in ~24 hours

### DuPont™ LiquidArmor™ LT Flashing and Sealant

- Silicone-based
- Trowel- or sausage-gun-applied
- Strong abrasion resistance
- Skins over in ~45 minutes
- Meets AAMA 714
- Long-term UV resistance



## DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound+

- STPE-based
- Trowel- or caulk-gun-applied
- Skins over in 1-2 hours
- Meets AAMA 714





## Hilton takes energy efficiency to new heights



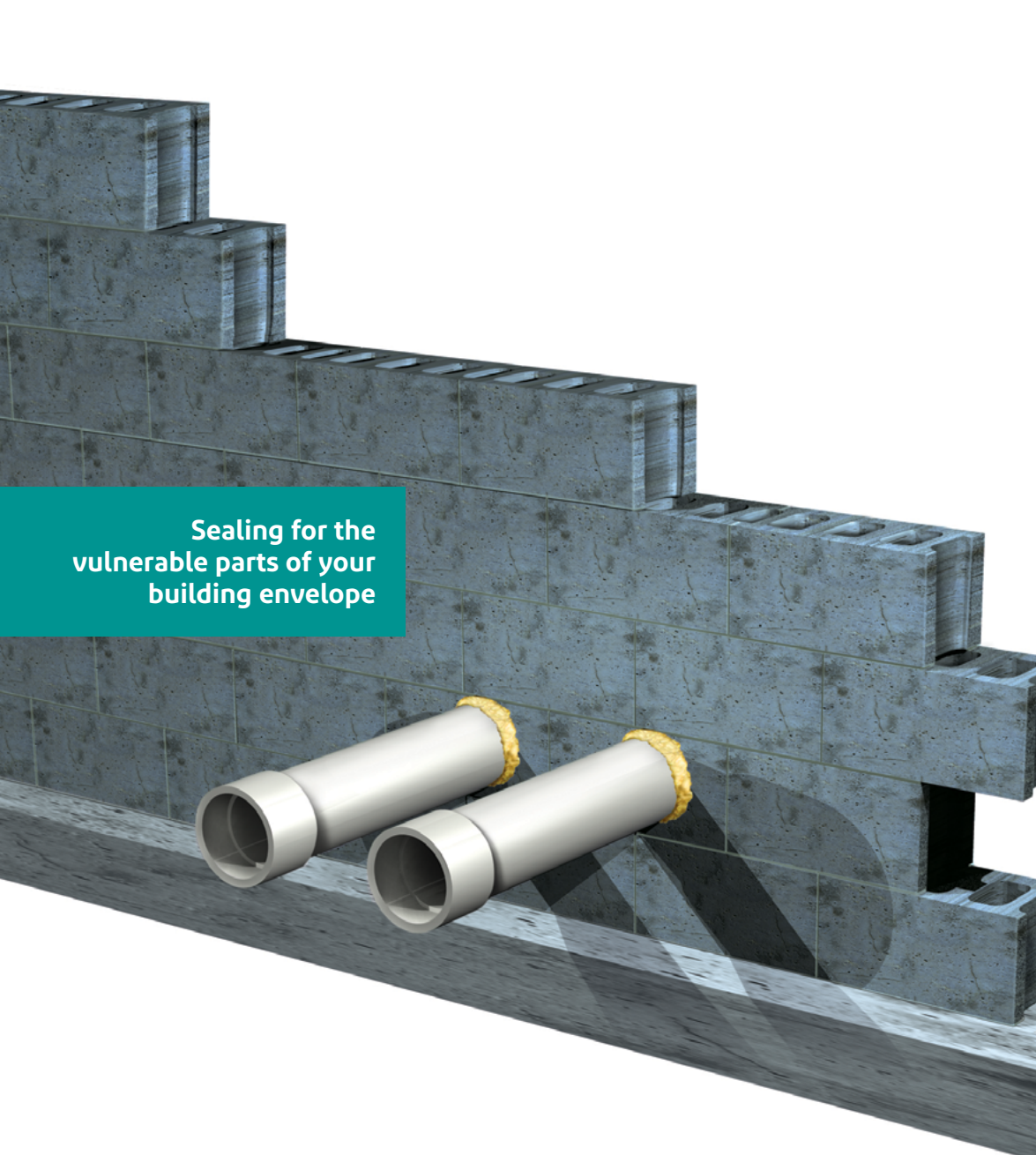
At Homewood Suites in Arlington, Virginia, Hilton Worldwide and DuPont teamed up to help Hilton achieve higher levels of energy efficiency in its new hotels.

They chose the DuPont™ Thermax™ Wall System with DuPont™ LiquidArmor™ LT Flashing and Sealant for the job. The DuPont™ Thermax™ Wall System helps streamline design and construction, while DuPont™ LiquidArmor™ LT Flashing and Sealant reduces air leakage to help building owners save money and provide a more comfortable environment to occupants.

### Results

- Estimated \$200,000 in cost savings
- 17% increase in R-value
- 18% R-value improvement over code

The success doesn't stop here. The plans are being shared with Hilton franchise members to help them envision better building options that yield a more profitable operating model and better customer experience.



Sealing for the vulnerable parts of your building envelope

### Insulating foam sealants

Professional-grade, easy-to install-sealants that reduce unwanted airflow, lower energy costs and improve comfort



#### DuPont™ Great Stuff Pro™ Window & Door Polyurethane Foam Sealant

- Bonds to vinyl, wood and metal frames
- Low expansion to appropriately seal gaps without bowing or bending frame
- Airtight, water-resistant seal
- Tack-free within 3-10 minutes; ready to trim within 60 minutes



#### DuPont™ Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant

- Ideal for gaps and penetrations up to 3"
- Recognized as a fireblock sealant
- Airtight, water-resistant seal



Ensure complete protection at critical interfaces

# Transitions



Modern building materials are enabling structures that are more energy-efficient, comfortable and durable. It's now more important than ever to ensure sealing between building elements to eliminate air and moisture penetration to maintain continuous protection.



## DuPont™ DuraGard™ CM Transition Flashing

- Self-adhered flashing features primerless adhesion to most substrates
- Ideal for multiple applications, from through-wall flashing and wall transitions to roof and below-grade systems
- Polyester-fiber top-sheet allows adhesion by most sealants
- Polypropylene interlayer for added robustness and durability
- Meets AAMA 711-20
- Complements air and water barrier assemblies



## DuPont™ Froth-Pak™ Foam Insulation two-component spray foam

**R-value 5.6/inch**

Air infiltration accounts for 25-40% of a building's energy loss. Reduce those losses by air-sealing with DuPont™ Froth-Pak™ Foam Insulation.

The professional insulation kit is available in many convenient sizes from 210 board feet to more than 2,000 board feet and larger, depending on your job needs.

- Intended for filling larger cavities, providing both insulation and air-sealing properties
- Class A rating (flame spread of 25 or less) allows use in a wide range of interior and exterior industrial, commercial, institutional and residential settings
- Meets NFPA 286 for roof-wall juncture (2" x 6" x unlimited length)



## Increasing energy efficiency



Creating an airtight and watertight building envelope contributes to energy efficiency in three important ways:

- 1. Making ventilation more effective** – HVAC represents the largest share of energy use in buildings. DuPont Building Envelope systems can reduce air leakage through the wall assembly – especially at critical transitions – to help HVAC systems work more efficiently.
- 2. Maintaining R-value** – At wind speeds as low as 5 mph, cavity batt insulation without an air barrier retains less than 40% of its original R-value. DuPont Building Envelope systems help control unwanted airflow, helping insulation maintain its installed R-value.
- 3. Protecting against moisture** – Wet insulation retains less than 40% of its effective R-value. DuPont Building Envelope systems help protect against bulk water intrusion and allow water vapor to escape to help keep insulation dry.

### Protection from roof to wall, wall to wall, and wall to foundation



#### DuPont™ LiquidArmor™ Flashing and Sealant

- Spans up to ¼" gap
- Available in three formulations to meet your exact needs:

##### DuPont™ LiquidArmor™ QS Flashing and Sealant

- Acrylic-based
- Spray- or brush-applied
- Dries to touch in 1-4 hours; rain-resistant in ~5 hours
- Meets AAMA 714

##### DuPont™ LiquidArmor™ CM Flashing and Sealant

- Acrylic-based
- Spray- or brush-applied
- Dries to touch in 1-4 hours; rain-resistant in ~24 hours

##### DuPont™ LiquidArmor™ LT Flashing and Sealant

- Silicone-based
- Trowel- or sausage-gun-applied
- Strong abrasion resistance
- Skins over in ~45 minutes
- Meets AAMA 714
- Long-term UV resistance



#### DuPont™ StraightFlash™ premium self-adhered flashing material

- Ideal for helping to protect heads and jambs of windows and doors
- Protects vulnerable areas between the fenestration and the water-resistive barrier often subject to potential water damage
- Superior durability – tear-resistant and withstands up to 270 days of UV exposure
- Excellent adhesion
- Performs through extreme temperatures

#### DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound+



- STPE-based
- Trowel- or caulk-gun-applied
- Skins over in 1-2 hours
- Meets AAMA 714



Protection all the way to the top

# Roofing



Your roof is a critical factor in the overall performance of the building envelope. Ensure a longer-lasting, energy-efficient and sustainable roof with moisture-resistant insulation and adhesive solutions from DuPont.

## Roofing solutions from DuPont

*Whatever your roof type – conventional, inverted, steep-slope, tile or clay – DuPont has insulation, sealing and adhesive solutions engineered to deliver superior performance.*

### DuPont™ Froth-Pak™ Foam Insulation two-component spray foam

**R-value 5.6/inch**



Available in many different sizes for your convenience on the job site, these professional insulation kits prevent air infiltration and reduce energy losses.

- Intended for filling larger cavities, providing both insulation and air-sealing properties
- Class A rating (flame spread of 25 or less) allows use in a wide range of interior and exterior industrial, commercial, institutional and residential settings



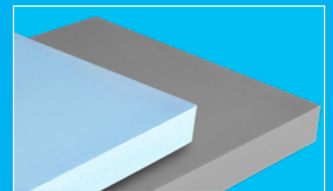
### DuPont™ Styrofoam™ Brand Extruded Polystyrene Insulation products

**R-value 5.0/inch**



The full range of DuPont™ Styrofoam™ Brand products brings a solution for every building application. For roofing, **DuPont™ Styrofoam™ Brand Roofmate™, Plazamate™ and Highload XPS Insulation** products offer ideal, water-resistant thermal protection for inverted or protected membrane-roof systems in a range of compressive strengths to suit your design needs.

- Strong, yet lightweight
- Easy to fabricate into various sizes and shapes to meet specific design needs
- Water- and rot-resistant – ideal for insulating green and blue roofs
- Reusable







## Insulation is key to inverted-roof performance



While traditional roofs place the insulation under the protective membrane, inverted roofs are designed with the waterproofing layer, usually a liquid-applied membrane, beneath the insulation. Insulation boards are loose-laid on top of the membrane and then weighted down with paving slabs, gravel ballast or soil medium in the case of “green” or vegetative roofs.

Inverted roofs offer:

1. Lower total roof-life costs
2. Improved environmental performance
3. Better storm water management
4. Greater occupant satisfaction
5. Habitat preservation
6. Potential storm water management when used in a “blue roof” design assembly

They require insulation that resists water absorption, provides excellent thermal performance, is unaffected by freeze/thaw cycles, withstands surface traffic, and is protected from UV and mechanical damage.

DuPont™ Styrofoam™ Brand XPS Insulation has long been a top choice for insulating green and blue roof assemblies.



### DuPont™ Insta Stik™ Quik Set Commercial Adhesive

- Polyurethane adhesive for attaching insulation boards to roof decks and substrates
- Works in a wide range of temperatures to extend the working season
- Easy-to-use, single-part formulation
- Maintains adhesion during freeze/thaw cycles
- Maximizes wind uplift resistance; secures insulation boards in high-wind conditions in loose-laid and ballasted applications
- Low thermal conductivity



### DuPont™ Tile Bond™ Roof Tile Adhesive

- Minimally expanding foam for clay and concrete roof tiles
- Quicker and easier to install compared to traditional attachment methods such as screws, mortar, wire ties and clips
- Provides greater attachment strength while minimizing nail penetrations and reducing roof weight loads



## DuPont™ Tyvek® fluid-applied products

Properties*	Percent solids	Skin-over time @ 50% R.H. and 70°F, hr	Air penetration resistance, cfm/ft <sup>2</sup> @ 75 Pa, (1.57 psf)	Air penetration resistance, sec/100 cc	Wall assembly air penetration resistance, cfm/ft <sup>2</sup> @ 75 Pa	Wall assembly air penetration resistance, cfm/ft <sup>2</sup> @ 75 Pa	Wall assembly air & water leakage	Water penetration resistance, cm	Wall assembly water penetration resistance, tested to 15 psf	Water vapor transmission, method B, perms	Low-temperature crack-bridging, no cracking at 25 mil thickness
Test method	ASTM D2369	ASTM C679	ASTM E2178	Gurley Hill (Tappi T-460)	ASTM E2357	ASTM E283	ASTM E1677	AATCC 127	ASTM E331	ASTM E96-00	ASTM C1305
DuPont™ Tyvek® Fluid Applied WB+™	99	1 to 2	0.0002	>10,000	<0.0002	<0.0002	Type I	>1,000	No leakage	22 @ 25 mils	Pass
DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound+	99	—	0.0002	>10,000	<0.0002	<0.0002	Type	>1,000	No leakage	25 @ 25 mils	Pass

## DuPont™ Tyvek® weather-resistive barrier products

Properties*	Air penetration resistance, cfm/ft <sup>2</sup> @ 1.57 psf	Air penetration resistance, sec/100 cc	Air penetration resistance, cfm/ft <sup>2</sup> @ 1.57 psf	Air penetration resistance, cfm/ft <sup>2</sup> @ 1.57 psf	Wall assembly air penetration resistance, cfm/ft <sup>2</sup> @ 1.57 psf	Water vapor transmission, method B, g/m <sup>2</sup> -24 hr	Water vapor transmission, method B, perms	Water penetration resistance, cm	Wall assembly water penetration resistance, tested to 15 psf	Basis weight, oz/yd <sup>2</sup>
Test method	ASTM E2357	Gurley Hill (TAPPI T-460)	ASTM E1677	ASTM E2178	ASTM E283	ASTM E96-00	ASTM E96-00	AATCC 127	ASTM E331	TAPPI T-410
DuPont™ Tyvek® CommercialWrap®	<0.01	>1,500	Type 1	0.001	<0.01	200	28	280	No leakage	2.7
DuPont™ Tyvek® CommercialWrap® D	<0.04	>750	Type 1	0.001	<0.04	212	30	235	No leakage	2.4

## DuPont™ Styrofoam™ Brand Extruded Polystyrene (XPS) Insulation products

Properties*	Thermal resistance <sup>(1,2)</sup> aged R-value per inch @ 75°F mean temp	Compressive strength, minimum, lb/in <sup>2</sup> <sup>(3)</sup>	Flexural strength, minimum, lb/in <sup>2</sup>	Water absorption, maximum, % by volume	Water vapor permeance <sup>(4)</sup> , maximum, perm	Dimensional stability, maximum, % linear change	Coefficient of linear thermal expansion, x10 <sup>-5</sup> in/in·°F	Complies with ASTM C578, Type <sup>(5)</sup>	Maximum use temperature, °F
ASTM method	C518	D1621	C203	C272	E96	D2126			
DuPont™ Styrofoam™ Brand Cavymate™	5.0	15	40	0.1	1.5	2.0	3.5	X	165
DuPont™ Styrofoam™ Brand Cavymate™ SC	5.0	15	40	0.1	1.5	2.0	3.5	X	165
DuPont™ Styrofoam™ Brand Cavymate™ Plus	5.0	25	50	0.1	1.5	2.0	3.5	IV	165
DuPont™ Styrofoam™ Brand Cavymate™ Ultra	5.6	25	50	0.1	1.5	2.0	3.5	IV	165
DuPont™ Styrofoam™ Brand Deckmate™ Plus	5.0	25	50	0.1	1.5	2.0	3.5	IV	165
DuPont™ Styrofoam™ Brand Deckmate™ Plus FA (Flat and Tapered)	5.0	25	50	0.1	1.5	2.0	3.5	IV	165
DuPont™ Styrofoam™ Brand Perimate™	1.063": R-5.0 2.125": R-10.0	30	50	0.1	1.5	2.0	3.5	IV	165
DuPont™ Styrofoam™ Brand Plazamate™	5.0	60	75	0.1	0.8	2.0	3.5	VII	165
DuPont™ Styrofoam™ Brand Roofmate™	5.0	40	60	0.1	1.0	2.0	3.5	VI	165
DuPont™ Styrofoam™ Brand Ribbed Roofmate™	5.0	40 <sup>(7)</sup>	60	0.1	1.0	2.0	3.5	VI	165
DuPont™ Styrofoam™ Brand Highload 40	5.0	40	60	0.1	1.0	2.0	3.5	VI	165
DuPont™ Styrofoam™ Brand Highload 60	5.0	60	75	0.1	0.8	2.0	3.5	VII	165
DuPont™ Styrofoam™ Brand Highload 100	5.0	100	100	0.1	0.8	2.0	3.5	V	165
DuPont™ Styrofoam™ Brand Scoreboard Foam <sup>(8)</sup>	5.0	25	50	0.1	1.5	2.0	3.5	IV	165
DuPont™ Styrofoam™ Brand Square Edge <sup>(8)</sup>	5.0	25	50	0.1	1.5	2.0	3.5	IV	165
DuPont™ Styrofoam™ Brand Tongue and Groove	5.0	25	50	0.1	1.5	2.0	3.5	IV	165
DuPont™ Styrofoam™ Ultra SL Foam	5.6	25	50	0.1	1.5	2.0	3.5	IV	165
DuPont™ Styrofoam™ Brand UtilityFit™ XPS 15 PSI Foam	5.0	15	40	0.1	1.5	2.0	3.5	X	165

\*These are typical physical properties. Not to be construed as sales specifications.



Adhesion strength – concrete, psi	Adhesion strength – exterior gypsum (delaminates fiber glass top sheet), psi	Peel strength, lbf/in (aluminum)	Adhesion-in-peel, lbf/in (mortar)	Tensile, psi	Elongation at break, %	Recovery (held at 300% elongation), %	Hardness, Shore A	Ultraviolet (UV) light exposure, months	Nail sealability, no leakage	Flame propagation, multiple assemblies	Surface burning characteristics, class, flame spread index, smoke developed index	VOC, % by wt (g/L)	Acceptance criteria for water-resistive barriers over exterior sheathing
ASTM D7234	ASTM D4541	ASTM D903	ASTM C794	ASTM D412	ASTM D412	ASTM D412	ASTM D2240	Accelerated Weathering (ASTM G155)	ASTM D1970	NFPA 285	ASTM E84	ASTM C1250	AC 212
>33	>25	13 cohesive failure	Pass	140	320	99	34	9	Pass	Pass	Class A 15 flame 10 smoke	<2 (25-30)	Pass
NA	NA	19 cohesive failure	Pass	245	400	>99	69	9	Pass	Pass	NA	<2 (25-30)	—

Breaking strength, lb/in	Tear resistance, lb	Surface burning characteristics, flame spread index class	Surface burning characteristics, smoke developed index class	Flame propagation/multiple assemblies	Ultraviolet (UV) light exposure, days	Ultraviolet (UV) light exposure, months	Drainage efficiency, %
ASTM D882	ASTM D1117	ASTM E84	ASTM E84	NFPA 285	—	—	ASTM E2273
38/35	12/10	15 Class A	25 Class A	Pass	270	9	—
33/41	6/9	15 Class A	25 Class A	Pass	270	9	>98

Flame spread <sup>(6)</sup>	Smoke developed	Width, in	Length, in	Typical thickness range, in
E84	E84			
15	165	16	96	1.0, 1.5, 2.0, 3.0
15	165	48	96	1.0, 1.5, 2.0, 2.5
15	165	16	96	1.0, 1.5, 2.0
10	155	15.75	96	1.75, 2.125, 2.5, 3.0
15	165	24 48	96 96	1.0, 1.5, 2.0, 2.5, 3.0, 4.0
15	165	24	96	1.5, 2.0, 2.5, 3.0, 4.0 1/8", 1/4", 1/2" slopes
15	165	24	96	1.063, 2.125
15	165	24	96	2.0, 3.0
15	165	24	96	1.0, 1.5, 2.0, 2.5, 3.0, 3.5, 4.0
15	165	24	96	2.0
15	165	24 48	96 96	2.0, 3.0
15	165	24	96	2.0, 3.0
15	165	24	96	2.0
15	165	48	96	0.75, 1.0, 1.5, 2.0, 2.5, 3.0
15	165	24 48	96 96	0.75, 1.0, 1.5, 2.0, 2.5, 3.0, 4.0
15	165	24 48	96 96	0.75, 1.0, 1.5, 2.0
10	155	48	96	1.75, 2.125, 2.5, 3.0
15	165	16	96	1.0, 1.5, 2.0, 3.0

### Accessories for DuPont™ Tyvek® CommercialWrap® and CommercialWrap® D

- Rodenhouse Thermal-Grip® FastCap™ (Thermal-Grip ci washer for Wall?)
- DuPont™ Tyvek® Commercial Wrap Cap Screws
- DuPont™ StraightFlash™
- DuPont™ FlexWrap™
- DuPont™ Flashing Tape
- DuPont™ Tyvek® Tape

### Accessories for DuPont™ Tyvek® Fluid Applied WB+™

- **DuPont™ Tyvek® Fluid Applied Flashing and Joint Compound+ –** Full-bodied brush- or trowel-applied vapor-permeable elastomeric flashing material used to coat rough openings for windows and doors, fill seams, cracks and holes in the substrate, to seal around penetrations, and to treat joints and transitions between building components.
- **Sealant for DuPont™ Tyvek® Fluid Applied System –** Vapor-impermeable sealant designed specifically for use with DuPont™ Tyvek® Fluid Applied WB+™ with excellent adhesion and elongation. Used to seal around windows, doors and penetrations.
- **DuPont™ StraightFlash™ –** Butyl-based self-adhered membrane used for flashing windows and doors, to treat transitions, and for terminations.
- **DuPont™ FlexWrap™ and DuPont™ FlexWrap™ EZ –** Extendable butyl-based self-adhered flashing materials that efficiently conform around corners and irregular shapes.

<sup>(1)</sup>Values are consistent with the criteria of ASTM C578 and the requirements of the FTC R-value rule (16 CFR Part 460). A 15-year limited thermal warranty is available.  
<sup>(2)</sup>R means resistance to heat flow. The higher the R-value, the greater the insulating power. R-values are expressed in ft<sup>2</sup>·h·°F/Btu.  
<sup>(3)</sup>Vertical compressive strength is measured at 10% deformation (5% for DuPont™ Styrofoam™ Brand Plazamate™ Insulation and for DuPont™ Styrofoam™ Brand Highload 40, 60 and 100 Insulation) or at yield, whichever occurs first. Because DuPont™ Styrofoam™ Brand Extruded Polystyrene Foam Insulation is a viscoelastic material, adequate design safety factors should be used to prevent long-term creep and fatigue deformation. For static loads, 3:1 is suggested. For dynamic loads, 5:1 is suggested.  
<sup>(4)</sup>Water vapor permeance varies with product type and thickness. Values are based on the desiccant method, and they apply to insulation "I" in thickness. Thicker products have lower permeance.  
<sup>(5)</sup>Former Federal Specification HH-1-524C was canceled in 1985 and replaced by ASTM C578.  
<sup>(6)</sup>This numerical flame spread rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.  
<sup>(7)</sup>Recommended load (psf) including 5:1 design factor.  
<sup>(8)</sup>If using product for Z-furring applications, contact your local DuPont sales representative for exact product sizes.

**Note:** Not all products are available in all parts of the country. Other product sizes are available on a made-to-order basis. Contact your DuPont representative with questions.

## DuPont™ Thermax™ Brand Insulation products and DuPont™ Tuff-R™ Commercial Insulation (polyisocyanurate)

Properties*	Thermal resistance 75°F <sup>(1,2)</sup>	Thermal resistance 40°F <sup>(1,2)</sup>	Compressive strength, minimum, core foam, lb/in <sup>2</sup>	Flexural strength, typical for 1" core foam, lb/in <sup>2</sup>	Water absorption, maximum, core foam, 2-hr results, % increase by volume	Water vapor permeance <sup>(3)</sup> , perm	Dimensional stability <sup>(4)</sup> , maximum, % linear change	Complies with ASTM	Maximum use temperature, °F	Flame spread <sup>(6)</sup> , maximum, core foam	Smoke developed, maximum, core foam	Width, in	Length, in	Typical thickness range, core foam, in
ASTM method	C518 75°F	C518 40°F	D1621	C203	C209	E96	D2126	C1289		E84	E84			
DuPont™ Thermax™ XARMOR™ (ci) Exterior Insulation	6.9	6.9	25	40	0.1	≤0.01	0.2	Type I Class 2	250	25	350	48 48	96 144	0.625, 1.0, 1.55, 2.0
DuPont™ Thermax™ (ci) Exterior Insulation	6.9	6.9	25	40	0.1	≤0.01	0.2	Type I Class 2	250	25	350	48 48	96 144	0.625, 1.0, 1.55, 2.0, 2.5, 3.0
DuPont™ Thermax™ Basic NH	6.6	7.1	25	40	0.1	0.02	0.4	Type I Class 2	250	25	<450	48	96	1.0, 1.55, 2.0, 3.0
DuPont™ Thermax™ Sheathing	6.9	6.9	25	40	0.1	≤0.01	0.2	Type I Class 2	250	25	350	48	96 108 120 144	0.5, 0.75, 1.0, 1.5, 1.55, 2.0, 2.5, 3.0, 3.5, 4.0
DuPont™ Thermax™ Heavy Duty Insulation	6.9	6.9	25	40	0.1	<0.01	0.2	Type I Class 2	250	25	350	48 48	96 120	1.0, 1.25, 1.55, 1.75, 2.0, 2.5, 3.0
DuPont™ Thermax™ Light Duty NH Insulation	6.6	7.1	25	40	0.1	<0.02	0.4	Type I Class 2	250	25	115	48 48	96 120	0.5, 0.75, 1.0, 1.25, 1.55, 1.75, 2.0, 2.5, 3.0
DuPont™ Thermax™ White Finish NH	6.6	7.1	25	40	0.1	0.02	0.4	Type I Class 2	250	25	115	48	108	0.5, 0.75, 1.0, 1.25, 1.5, 1.55, 1.75, 2.0
DuPont™ Thermax™ Metal Building Board NH	6.6	7.1	25	40	0.1	0.02	0.4	Type I Class 2	250	25	115	48 48	96 120	0.5, 0.75, 1.0, 1.75, 2.0, 2.5, 3.0, 3.5, 4.0
DuPont™ Tuff-R™	6.8	NA	25	40	0.1	<0.03	0.8	Type I Class 1 or 2 <sup>(5)</sup>	190	55	80	48	108	1.0, 1.25, 1.50, 1.875, 2.0

<sup>(1)</sup> Evaluated in laboratory testing at stated temperature and 50% humidity. Exact performance will vary depending on actual job site conditions. Aged R-value per 1" @ stated mean temperature. R-values are expressed in ft<sup>2</sup>·h·°F/Btu.

<sup>(2)</sup> R means resistance to heat flow. The higher the R-value, the greater the insulating power. R-values determined by ASTM C518 using the aging process in ASTM C1289 (90 days @ 140°F).

<sup>(3)</sup> Water vapor permeance varies with product type and thickness. Values are based on the desiccant method, and they apply to insulation 1" in thickness. Thicker products have lower permeance.

<sup>(4)</sup> Length and width.

<sup>(5)</sup> Varies with thickness.

<sup>(6)</sup> These numerical flame spread ratings are not intended to reflect hazards presented by this or any other material under actual fire conditions.

**Note:** Not all products are available in all parts of the country. Other product sizes are available on a made-to-order basis. Custom lengths of DuPont™ Thermax™ Brand Insulation products are available for orders of 7,500 board feet or more. Contact your DuPont representative with questions.

## DuPont™ ArmorWall Plus Fire-Rated Structural Insulated Sheathing™ products

Properties*	Air leakage resistance	Air infiltration at 75 Pa, cfm/ft <sup>2</sup> (L/s/m <sup>2</sup> )	Air infiltration at 300 Pa, cfm/ft <sup>2</sup> (L/s/m <sup>2</sup> )	Water penetration at 6.27 psf (300 Pa)	Mold and mildew	Fastener sealability <sup>(2)</sup>	Assembly fire rating, hr	Fire resistance	Vapor permeance, Perms (grains/hr in Hg ft <sup>2</sup> )	Flame spread/smoke developed index – facer	Flame spread/smoke developed index – insulation	Thermal resistance, R-value per inch	Foam compression range, psi	Fastener withdrawal capacity, lb	Fastener pull-through, lb	Fastener shear in sheathing only, lb	Panel size, in	Panel thickness – sheathing/insulation/ total, in
Test method	ASTM E2357	ASTM E283	ASTM E283	ASTM 331 <sup>(1)</sup>	ASTM C1338	ASTM D1970	NFPA 285 <sup>(3)</sup>	ASTM E96 (Procedure A)	ASTM E84	ASTM E84	ASTM C518	ASTM D1621	ASTM D1761 <sup>(4,5)</sup>	ASTM D1761 <sup>(4,5)</sup>	ASTM D1761 <sup>(4,5)</sup>			
DuPont™ ArmorWall Plus Fire-Rated Structural Insulated Sheathing™	Pass	0.01 (0.1)	0.04 (0.2)	Pass	No observed growth	Pass	1 and 2	Pass	0.5	0/0	20/200	6.5	38 - 42	284	505.2	519	49 x 96	0.5/1.5/2 0.5/2.25/2.75 0.5/3.25/3.75
DuPont™ ArmorWall SP Plus Fire-Rated Structural Insulated Sheathing™	Pass	0.01 (0.1)	0.04 (0.2)	Pass	No observed growth	Pass	2	Pass	0.5	0/0	20/200	6.5	38 - 42	284	505.2	519	49 x 96	0.5 + 0.5/1.5/2.75 0.5 + 0.5/2.25/3.75 0.5 + 0.5/3.25/4.25

<sup>(1)</sup> Total test duration: Two full, continuous hours.

<sup>(2)</sup> DuPont™ ArmorWall SP Plus FR SIS™ is self-healing around cladding attachment fasteners.

<sup>(3)</sup> DuPont™ ArmorWall SP Plus FR SIS™ passes NFPA 285 attached directly to the stud framing, allowing most cladding installed to its exterior as inclusive to the NFPA 285-approved assembly.

<sup>(4)</sup> Average ultimate value after thermal cycling (10 cycles).

<sup>(5)</sup> Fastener data reflects attachment to the panel, not attachment to the structure.

## DuPont™ LiquidArmor™ Flashing materials

Properties*	Application	Chemistry	Application temperature, °F	Application thickness, mils	Tensile (ASTM D412), psi	Elongation (ASTM D412), %	Rain resistance <sup>(1)</sup> , hr	Water vapor transmission (ASTM E96 method B), perms	AAMA 714
DuPont™ LiquidArmor™ CM Flashing	Spray, brush	Water-based acrylic latex	35 - 120	50 ±5	340	270	24	4	—
DuPont™ LiquidArmor™ LT Flashing	Trowel	Silicone	-20 - 120	30 ±5	210	270	Immediate	3	Y
DuPont™ LiquidArmor™ QS Flashing	Spray, brush	Water-based acrylic latex	40 - 120	50 ±5	190	283	5	4	Y

<sup>(1)</sup> Evaluated in laboratory testing at 75°F and 50% humidity. Exact performance will vary depending on actual job site conditions.

\*These are typical physical properties. Not to be construed as sales specifications.



## DuPont™ Froth-Pak™ Foam Insulation (polyurethane)

Properties*	Flexural strength, parallel, lb/in <sup>2</sup>	Thermal resistance, R-value per inch, ft <sup>2</sup> -h <sup>2</sup> -°F/Btu	Compressive strength, parallel, lb/in <sup>2</sup>	Shear strength, parallel, lb/in <sup>2</sup>	Apparent core density, lb/ft <sup>3</sup>	Water absorption, 5% by volume	Water vapor permeance @ 1" thick, perm	Cure time, min	Application temperature, °F	Sizes
ASTM method	C203	C518	D1621	C273	D1622	D2842	E96			
DuPont™ Froth-Pak™ Foam Insulation (CLASS A)	22.7	5.6 <sup>(1)</sup>	21.1	16.7	2.0	2.17	3.9	Tack-free <sup>(2)</sup> <1 min	60 - 90	Selection of kit sizes and refill systems available

<sup>(1)</sup>Aged R-value: 90 days @ 140°F. Initial R-value: 6.6.

<sup>(2)</sup>Actual cure time will depend on temperature, foam thickness, specific nozzle used, etc.

## Polyurethane foam sealants and adhesives

Properties*	Cure time	Size	Yield <sup>(1)</sup>
DuPont™ Enerfoam™ Professional Foam Sealant	Tack-free <20 min; trim in 30 min	24 oz can, reusable straw 24 oz can, gun 30 oz can, gun	775 ft 970 ft 1,450 ft
DuPont™ Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant <sup>(2)</sup>	Tack-free <6 min; trim in 30 min; full cure in 1 hr	24 oz can, reusable straw 24 oz can, gun 30 oz can, reusable straw 30 oz can, gun	775 ft <sup>(3)</sup> 970 ft <sup>(3)</sup> 995 ft <sup>(3)</sup> 1,450 ft <sup>(3)</sup>
DuPont™ Great Stuff Pro™ Window & Door Polyurethane Foam Sealant <sup>(2)</sup>	Tack-free <9 min; trim in 1 hr; full cure in 12 hr	20 oz can, reusable straw 20 oz can, gun 24.5 oz can, reusable straw 24.5 oz can, gun	6-9 windows <sup>(4)</sup> 8-11 windows <sup>(4)</sup> 8-11 windows <sup>(4)</sup> 11-14 windows <sup>(4)</sup>
DuPont™ Insta Stik™ Quik Set Commercial Adhesive <sup>(5)</sup>	Tack-free 3-7 min, depending on humidity	30 lb canister only (23 lb net chemical weight)	Refer to E-Z Estimating Guide
DuPont™ Tile Bond™ Roof Tile Adhesive <sup>(6)</sup>	Tack-free 5-15 min	23 lb complete (canister with gun/hose assembly) 23 lb canister only 28 oz can, reusable straw	Up to 375 field tiles for 23 lb tank

<sup>(1)</sup>For estimated yields at other product sizes, bead sizes and conditions, contact your DuPont representative.

<sup>(2)</sup>Actual cure time will depend on temperature, relative humidity and size of foam bead.

<sup>(3)</sup>Estimated yield under ideal conditions based on gun foam, 3/8" bead.

<sup>(4)</sup>Estimated yield (gun foam) under ideal conditions for 36" x 60" window, 3/8" wide gap, 1" deep, 3/8" bead.

<sup>(5)</sup>Time-saving multibead applicator available.

<sup>(6)</sup>Contact DuPont for approved underlayments and tile uses.

## Self-adhered flashing products

Properties*	Face sheet	Adhesive <sup>(1)</sup>	Thickness	Release liner	Dimensions (width x length)	Features	Applications
DuPont™ DuraGard™ CM Transition Flashing	Polyester fiber	Modified butyl	45 mils (1,143 µm)	Siliconized polyester film	6", 9", 12", 18", 24" or 36" x 75'	<ul style="list-style-type: none"> <li>6 months of UV protection</li> <li>Compatible with most sealants</li> <li>Low-temperature application capability (25°F)</li> <li>AAMA 711-20, Class A (no primer); Level 3 Thermal Exposure</li> </ul>	Through-wall; roof-to-wall, parapet, wall-to-below-grade, balcony transitions; above window kick-outs; wall offsets; rough window openings
DuPont™ FlexWrap™	Microcreped polyethylene laminate (white)	Butyl rubber (black)	64 mil (1,620 µm)	1-piece, heavy-duty siliconized paper for 6" width; 2-piece, heavy-duty siliconized paper for 9" width	6" or 9" x 75'; 9" x 15'		Round-top or custom-shaped windows, 3D sill protection, wall interruptions (e.g., dryer vents, hose bibs); suitable for use on substrates where fasteners cannot be applied
DuPont™ FlexWrap™ EZ	Microcreped polyethylene laminate (white)	Butyl rubber (black)	64 mil (1,620 µm)	2-piece, heavy-duty siliconized, scored release paper	2¾" x 15'	<ul style="list-style-type: none"> <li>UV resistance: Cover in 270 days</li> <li>AAMA 711-13, Class A (no primer); Level 3 Thermal Exposure</li> </ul>	Wall penetrations (e.g., round pipes, electrical boxes, wires, dryer vents, hose bibs, etc.)
DuPont™ StraightFlash™	Spunbonded polyethylene laminate (white)	Butyl rubber (black)	30 mil (760 µm)	2-piece, heavy-duty siliconized, scored release paper	4" x 150'; 9" x 125'	<ul style="list-style-type: none"> <li>Low-temperature application capability (25°F)</li> </ul>	Jamb and heads of rectangular windows
DuPont™ StraightFlash™ VF	Spunbonded polyethylene laminate (white)	Transposed dual-sided adhesive for continuous integration; butyl rubber (black)	30 mil (760 µm)	2-piece, heavy-duty siliconized, scored release paper	6" x 125'; 6" x 25'		Brick mold, nonintegral flanged and nonflanged rectangular windows and doors

<sup>(1)</sup>Adhesive system is based on 100% butyl elastomer with no asphalt/modified bitumen components.

\*These are typical physical properties. Not to be construed as sales specifications.

# A new standard in building protection

DuPont Performance Building Solutions has the answers for your construction needs. We're creating products and services designed to help you thrive – protecting your projects, improving your productivity and helping you meet your business goals.

DuPont – the leading materials provider for all six sides of your building envelope – has the people, knowledge and relationships that make us the go-to resource in the construction industry – for the reliable commercial construction materials needed for today's demands, and for the next generation of sustainable, inspirational building projects.

## Learn more

Detailed product information, installation guidance and learning resources – as well as complete submittal resources – are available at our online [Resource Center](#) and [Answer Center](#).

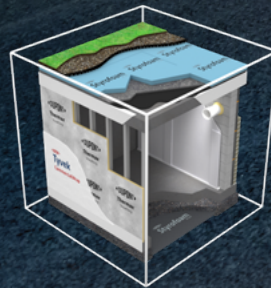
Contact your local DuPont Performance Building Solutions representative for more information.

**DuPont Contact Center**  
1-833-338-7668



## Beyond all six sides

Ensuring adequate protection for buildings is just the start. Beyond the buildings themselves, infrastructure projects – including highways, railways and even buried utilities – are prone to damage from frost heaving and spring breakup. Contact your DuPont representative to discover how our high-performance insulation solutions for geotechnical applications can help minimize harm from nature's demanding thermal challenges.



[AllSixSides.DuPont.com](https://www.AllSixSides.DuPont.com)



DuPont®, the DuPont Oval Logo, and all trademarks and service marks denoted with ™, ® or \* are owned by affiliates of DuPont de Nemours, Inc. unless otherwise noted.

LEED® is a trademark of U.S. Green Building Council. Living Building Challenge™ is a trademark of International Future Living Institute.

© 2022 DuPont.

No freedom from infringement of any patent or trademark owned by DuPont or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where DuPont is represented. The claims made may not have been approved for use in all countries. DuPont assumes no obligation or liability for the information in this document. References to "DuPont" or the "Company" mean the DuPont legal entity selling the products to Customer unless otherwise expressly noted. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.