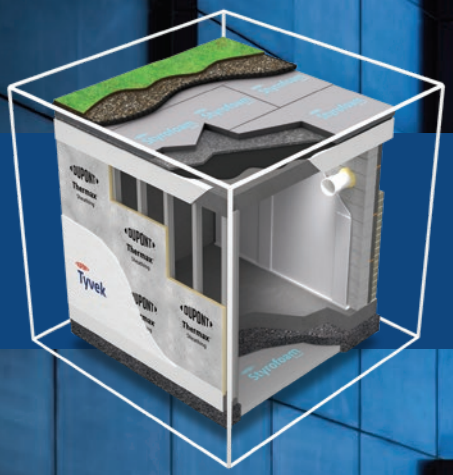
Building & Construction

DUPONT™



Protection for all six sides

Water, air and thermal solutions for building & construction

Canada | Commercial Construction

Contents

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.

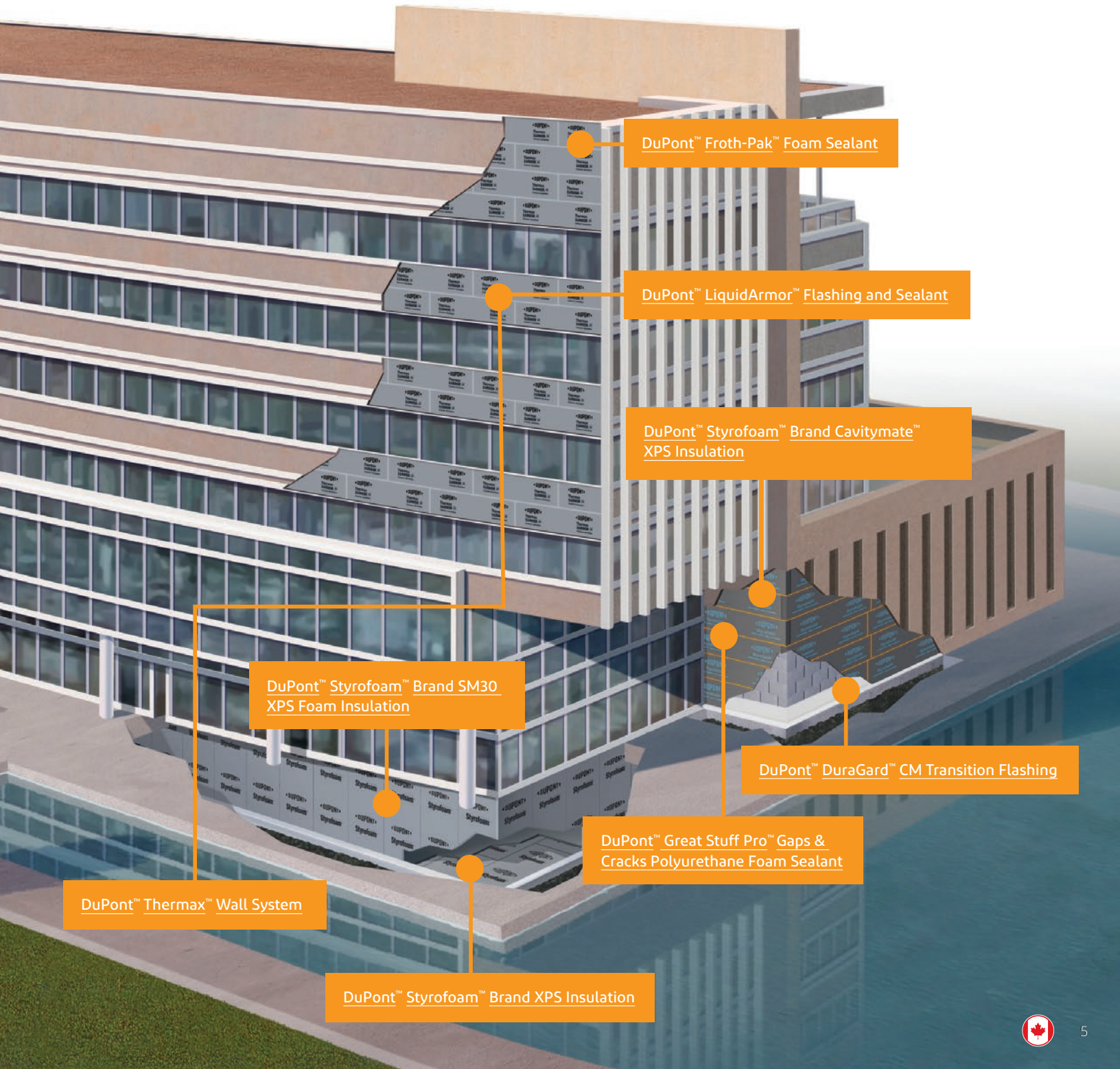
And it's all backed by the expertise of building science leaders who are dedicated to your success and warranties from a name you trust. Protecting all six sides of your building, from foundation to walls to roof and the transitions in between, is our commitment to you.

Better materials for improved sustainability

Featuring a new grey color and the same great performance, DuPont™ Styrofoam™ Brand Extruded Polystyrene (XPS) Insulation has transitioned to a new low-global-warming-potential formulation that helps minimize greenhouse gas emissions. It's the next move in a journey that's driven by our commitment to building a more sustainable future – all while maintaining the trusted performance you've come to expect.

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™ Froth-Pak™ Foam Sealant
DuPont™ LiquidArmor™ Flashing and Sealant
DuPont™ Styrofoam™ Brand Cavitymate™ XPS Insulation
DuPont™ Styrofoam™ Brand SM30 XPS Foam Insulation
DuPont™ DuraGard™ CM Transition Flashing
DuPont™ Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant
DuPont™ Thermax™ Wall System
DuPont™ Styrofoam™ Brand XPS Insulation

Energy-efficient structures are built from the ground up

Block or concrete foundation walls

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

DuPont™ Styrofoam™ Brand SM30 Extruded Polystyrene Foam Insulation

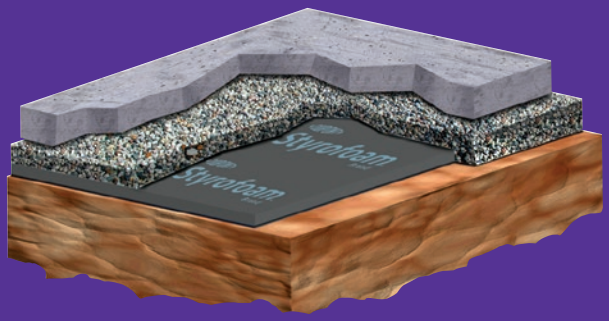
R-value 5.0/inch (RSI 0.88/25 mm)

- Multipurpose insulation for protecting foundation walls
- Lightweight – easy to handle, cut and install
- Resistant to moisture infiltration, condensation and freeze-thaw cycles
- Available in ranges of thicknesses and surface and edge treatments

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

R-value 5.0/inch (RSI 0.88/25 mm)

- 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



Uninsulated, conditioned below-grade walls can account for up to 50% of total heat loss in an otherwise tightly sealed, well-insulated structure[1]

[1]Report, Kansas State University and the U.S. Department of Energy.

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.

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 (RSI 0.88/25 mm)

- Moisture-resistant, durable and lightweight
- Extruded polystyrene foam board specifically designed for use in wet cavity wall environments in commercial applications
- Produced in metric board sizes to correctly align with Canadian metric block and tie spacing

DuPont™ Styrofoam™ Brand CM20 Extruded Polystyrene Foam Insulation

R-value 5.0/inch (RSI 0.88/25 mm)

- Versatile, moisture-resistant insulation appropriate for cavity wall applications and as insulating sheathing for steel- or wood-frame construction
- Exceptional long-term thermal performance

DuPont™ Styrofoam™ Brand SM30 Extruded Polystyrene Foam Insulation

R-value 5.0/inch (RSI 0.88/25 mm)

- Multipurpose insulation for protecting foundation walls
- Lightweight – easy to handle, cut and install
- Resistant to moisture infiltration, condensation and freeze-thaw cycles
- Available in ranges of thicknesses and surface and edge treatments

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

Wall systems

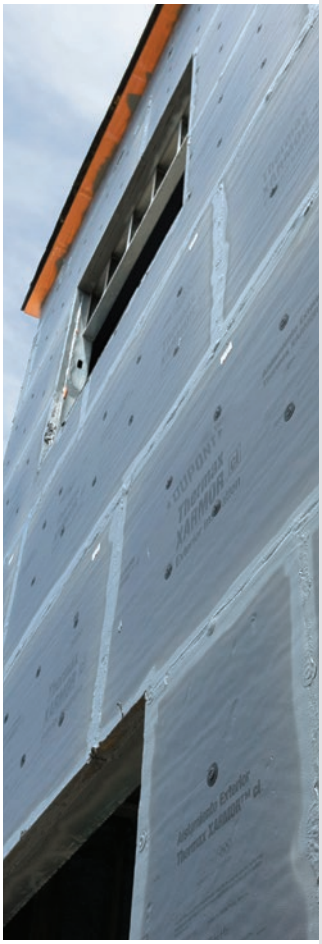
More than just products, DuPont offers fully integrated wall systems that leverage our proven technologies, compatible materials and construction expertise, all backed by industry-leading warranties.

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

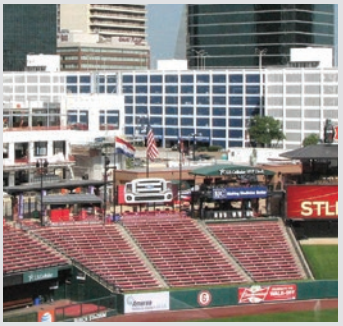
- Wide portfolio enables flexibility to choose the right assembly for the job – including wrap over foam, WRB under foam and inverted wall assemblies
- Assemblies are tested above and beyond code requirements for exceptional water holdout, air holdout and thermal performance
- Industry-leading system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



Covering all the bases in St. Louis Ballpark Village



Goal

Provide an effective weather barrier system for the St. Louis (Missouri, USA) Ballpark Village, the United States' first fully integrated mixed-use development designed to deliver the excitement of the gameday experience outside the stadium walls.

Challenges

With an average of 48 days of thunderstorms and 41 inches of precipitation per year – plus hot, humid summers and wintry rain – St. Louis gets more than its share of severe weather, which necessitates the use of high-performing weather barrier systems.

Solution

The construction team specified an air and water barrier system that includes DuPont™ Tyvek® CommercialWrap® to help ensure a sealed, protective building envelope. In addition to the many benefits of the product itself, the team cited the support of the local DuPont technical representative as an advantage to having chosen the product.

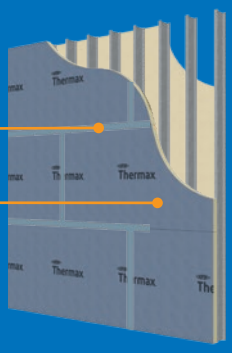
Integrated insulation and barrier solutions

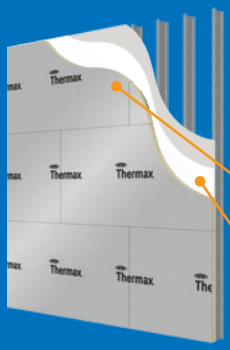
Wall systems

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

DuPont™ Thermax™ Wall System (TWS)

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

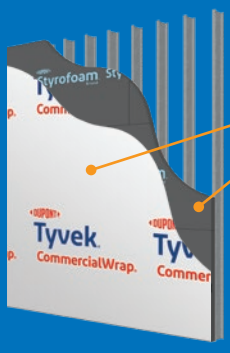




DuPont™ Commercial Wall² System

Wall² – Tyvek® WRB Under Exterior CI

- DuPont™ Styrofoam™ Brand XPS or DuPont™ Thermax™ Brand insulation
- DuPont™ Tyvek® CommercialWrap®



Wall² – Tyvek® WRB Over Exterior CI

- DuPont™ Tyvek® CommercialWrap®
- DuPont™ Styrofoam™ Brand XPS or DuPont™ Thermax™ Brand insulation

Wall² – Inverted Wall

- DuPont™ Tyvek® CommercialWrap®
- Exterior gypsum
- DuPont™ Styrofoam™ Brand XPS or DuPont™ Thermax™ Brand insulation

Wall systems backed by industry-leading warranties

DuPont™ Thermax™ Wall System	Warranty term	Warranty coverage
DuPont™ Thermax™ Wall System DuPont™ Thermax™ Sheathing used with choice of DuPont™ or LT Flashing and Sealant	10-year product & labor 5-year system with labor 3-month product	Water 20-year thermal
DuPont™ Wall² System		
Wall² – Tyvek® WRB Under Exterior CI DuPont™ Styrofoam™ Brand XPS Insulation or DuPont™ Thermax™ Brand Insulation installed over DuPont™ Tyvek® CommercialWrap®	10-year product 10-year labor	Air Water Thermal* 6-month UV
Wall² – Tyvek® WRB Over Exterior CI DuPont™ Tyvek® CommercialWrap® installed over DuPont™ Styrofoam™ Brand XPS Insulation or DuPont™ Thermax™ Brand Insulation	10-year product 10-year labor	Air Water Thermal* 9-month UV
Wall² – Inverted Wall DuPont™ Tyvek® CommercialWrap® installed on exterior gypsum over DuPont™ Styrofoam™ Brand XPS Insulation or DuPont™ Thermax™ Brand Insulation	10-year product 10-year labor	Air Water Thermal* 9-month UV

*For thermal product only warranty, up to 50 years depending on product.

Durable, moisture-resistant protection for concrete construction

Precast/tilt-up

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

Continuous 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™ Styrofoam™ Brand Panelmate™ Ultra Extruded Polystyrene Foam Insulation

R-value 5.6/inch (RSI 0.97/25 mm)

DuPont™ Styrofoam™ Brand Panelmate™ Extruded Polystyrene Foam Insulation

R-value 5.0/inch (RSI 0.88/25 mm)

- Moisture-resistant insulation for precast concrete wall systems
- Durable, strong and energy-efficient
- Maintains thermal value when subjected to the concrete panel manufacturing process
- DuPont™ Styrofoam™ Brand Panelmate™ Ultra XPS Foam Insulation is designed specifically for insulated precast concrete panels that require above-average thermal performance

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"
- 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
- Water-resistant seal

DuPont™ Styrofoam™ Brand XPS Insulation and DuPont™ Froth-Pak™ Foam Sealant are low-emitting materials[1]

[1]Passes CDPH Standard Method – 2010. Certificates available upon request.

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.

Insulating and sealing for windows, doors and penetrations

Fenestrations and openings

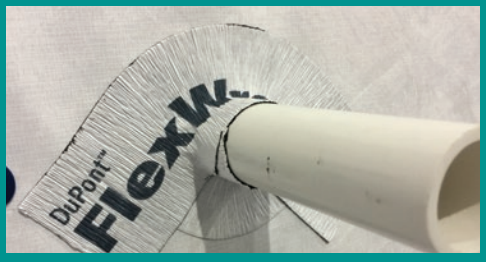
Enhance the long-term performance of your building's openings. Prevent air leaks and moisture infiltration around the rough openings of windows, doors and other penetrations with insulation and weatherization solutions from DuPont.

DuPont™ FlexWrap™ EZ flexible flashing

- 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

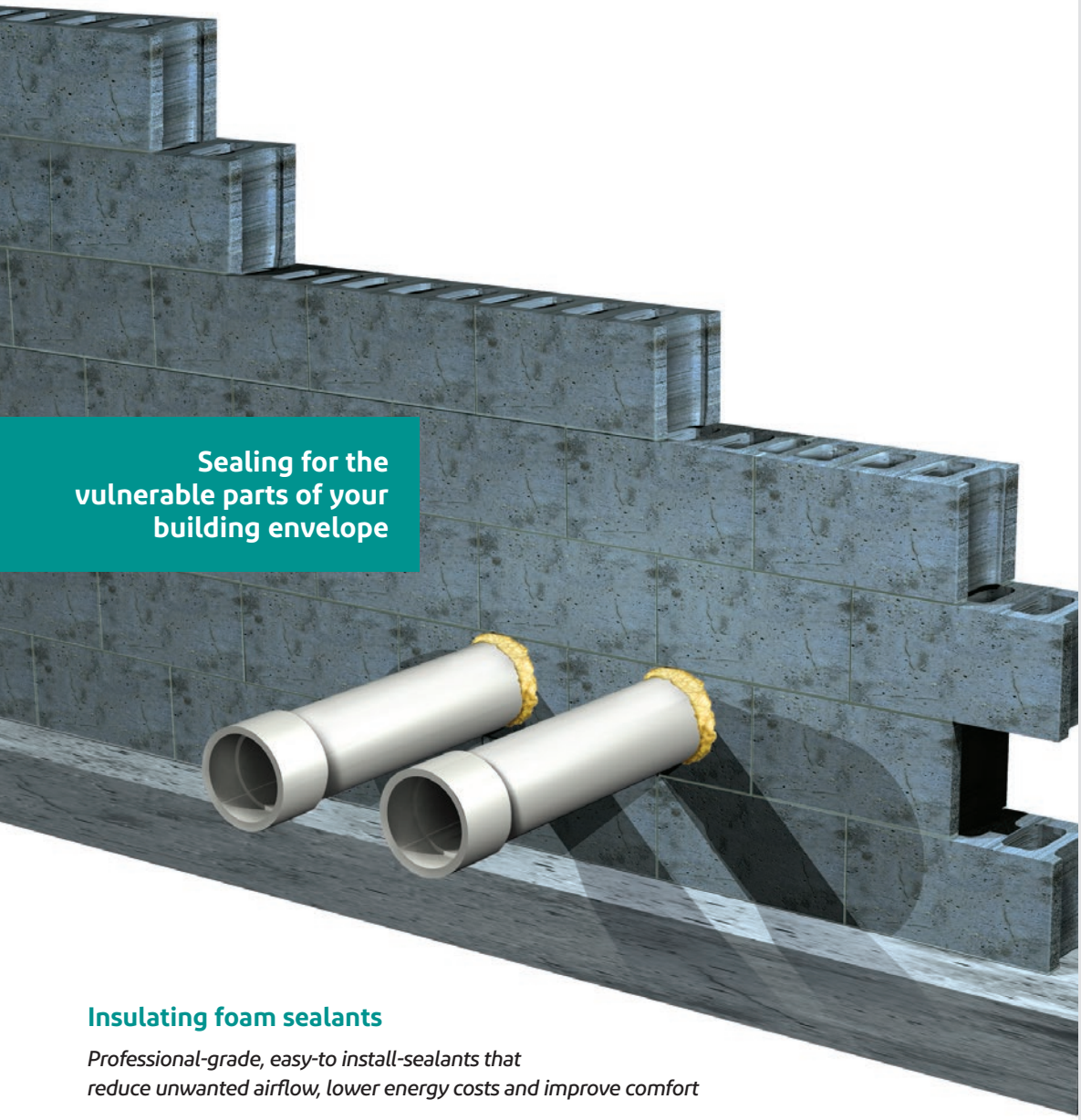


DuPont™ LiquidArmor™ Flashing and Sealant

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

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



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"
- Forms a long-lasting, airtight, weather-resistant seal
- Fills, seals and insulates gaps up to 1"
- Adheres to wood, metal, masonry, glass and most plastics
- Tack-free in 5-15 minutes

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.

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 Sealant two-component spray foam

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

The professional kit is available in many convenient sizes to meet your job needs.

- Intended for filling larger cavities, providing air-sealing properties
- CCMC 13447-L
- Available in 12-, 200- and 620-board-feet kits

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

DuPont™ LiquidArmor™ Flashing and Sealant

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

  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 temperature

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 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, protected membrane, steep-slope, tile or clay – DuPont has insulation, sealing and adhesive solutions engineered to deliver superior performance.

DuPont™ Froth-Pak™ Foam Sealant two-component spray foam

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

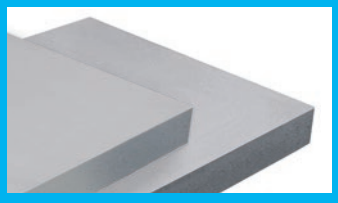
- Intended for filling larger cavities, providing air-sealing properties
- CCMC 13447-L

DuPont™ Styrofoam™ Brand Extruded Polystyrene Insulation products

R-value 5.0/inch (RSI 0.88/25 mm)

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

- Strong, yet lightweight
- Water- and rot-resistant – ideal for insulating green and blue roofs
- Reusable



Insulation is key to protected membrane roof system performance

While traditional roofs place the insulation under the protective membrane, PMR systems 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.

PMR systems 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™ Tyvek® weather-resistive barrier products

Properties*	Air penetration resistance, cfm/ft² @ 1.57 psf	Air penetration resistance, sec/100 cc	Air penetration resistance, cfm/ft² @ 1.57 psf	Air penetration resistance, cfm/ft² @ 1.57 psf	Wall assembly air penetration resistance, cfm/ft² @ 1.57 psf	Water vapor transmission, method B, g/m²-24 hr	Water vapor transmission, method B, perms	Water penetration resistance, cm	Wall assembly water penetration resistance, tested to 15 psf	Basis weight, oz/yd²	Breaking strength, lb/in
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	ASTM D882
DuPont™ Tyvek® CommercialWrap®	<0.01	>1,500	Type 1	0.001	<0.01	200	28	280	No leakage	2.7	38/35
DuPont™ Tyvek® DrainWrap™	—	—	Type 1	0.004		250	50	210		2.1	30/30

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

Properties*	Thermal resistance[1,2], aged R-value per inch @ 75°F mean temp (RSI per 25 mm @ 24°C mean temp)	LTTR, m²°C/W (at 50 mm thickness)	Compressive strength[3], minimum, lb/in² (kPa)	Flexural strength, minimum, lb/in² (kPa)	Water absorption, maximum, % by volume	Water vapor permeance[4], maximum perm (ng/Pa.s.m²)	Dimensional stability, maximum, % linear change	Coefficient of linear thermal expansion, x10⁻⁵ in/in•°F	Complies with CAN/ ULC-S701.1-17, Type (Listing #)
Test method	ASTM C518	CAN/ULC-S770	ASTM D1621	ASTM C203	ASTM D2842	ASTM E96	ASTM D2126		
DuPont™ Styrofoam™ Brand Cavitymate™	5.0 (0.88)	1.72	25 (172)	44 (303)	1.9	1.2 (64)	1.5	3.5	3 (11420-L)
DuPont™ Styrofoam™ Brand CM20	5.0 (0.88)	1.72	21 (145)	44 (303)	0.7	1.2 (64)	1.5	3.5	3 (11420-L)
DuPont™ Styrofoam™ Brand Highload 40	5.0 (0.88)	1.71	40 (276)	70 (483)	0.6	0.87 (50)	1.5	3.5	4 (04888-L)
DuPont™ Styrofoam™ Brand Highload 60	5.0 (0.88)	1.71	60 (414)	85 (586)	0.55	0.87 (50)	1.5	3.5	4 (04888-L)
DuPont™ Styrofoam™ Brand Highload 100	5.0 (0.88)	1.71	100 (689)	100 (689)	0.5	0.87 (50)	1.5	3.5	4 (04888-L)
DuPont™ Styrofoam™ Brand Panelmate™	5.0 (0.88)	1.72	16 (110)	35 (241)	0.9	1.3 (73)	1.5	3.5	2 (12085-L)
DuPont™ Styrofoam™ Brand Roofmate™	5.0 (0.88)	1.71	35 (241)	51 (352)	0.7	0.87 (50)	1.5	3.5	4 (04888-L)
DuPont™ Styrofoam™ Brand SM30	5.0 (0.88)	1.71	30 (207)	51 (352)	0.3	0.87 (50)	1.5	3.5	4 (04888-L)

[1]Thermal values are consistent with the criteria of ASTM C578 and are not assessed by the CCMC. Depending on the product, a 15-, 30- or 50- year limited thermal warranty is available.
[2]R means resistance to heat flow. The higher the R-value, the greater the insulating power. R-values are expressed in ft²•h•°F/Btu.
[3]Vertical compressive strength is measured at 10% deformation (5% for DuPont™ Styrofoam™ Brand Highload 40, 60 and 100 Extruded Polystyrene Insulation) or at yield, whichever occurs first. Because DuPont™ Styrofoam™ Brand Extruded Polystyrene 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.
[4]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.

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

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.

Properties* *(continued)*	Tear resistance, lb	CCMC Registry	Surface burning characteristics, flame spread index class	Surface burning characteristics, smoke developed index class	Ultraviolet (UV) light exposure, days	Ultraviolet (UV) light exposure, months
Test method	ASTM D1117		ASTM E84	ASTM E84		
DuPont™ Tyvek® CommercialWrap®	12/10	13119-R, 13253-R	15 Class A	25 Class A	270	9
DuPont™ Tyvek® DrainWrap™	7/9	—	5 Class A	25 Class A	120	4

Accessories for DuPont™ Tyvek® CommercialWrap®

- DuPont™ StraightFlash™
- DuPont™ FlexWrap™
- DuPont™ Flashing Tape
- DuPont™ Tyvek® Tape

Properties* *(continued)*	Maximum use temperature, °F (°C)	Board dimensions	Board thickness, nominal
Test method			
DuPont™ Styrofoam™ Brand Cavitymate™	165 (74)	400 x 2,400 mm	50, 75, 100 mm
DuPont™ Styrofoam™ Brand CM20	165 (74)	2 x 8 ft 4 x 8 ft 4 x 9 ft	0.5, 1.0, 1.5, 2.0, 3.0 in 1.0, 1.5, 2.0 in 1.0, 1.5 in
DuPont™ Styrofoam™ Brand Highload 40	165 (74)	24 x 96 in	1.0, 1.5, 2.0, 3.0 in
DuPont™ Styrofoam™ Brand Highload 60	165 (74)	24 x 96 in	1.0, 1.5, 2.0, 3.0 in
DuPont™ Styrofoam™ Brand Highload 100	165 (74)	24 x 96 in	2.0, 3.0 in
DuPont™ Styrofoam™ Brand Panelmate™	165 (74)	600 x 2,400 mm	Custom
DuPont™ Styrofoam™ Brand Roofmate™	165 (74)	24 x 96 in	1.0, 1.5, 2.0, 2.5, 3.0, 4.0 in
DuPont™ Styrofoam™ Brand SM30	165 (74)	24 x 96 in 48 x 96 in 600 x 2,400 mm	1.0, 1.5, 2.0, 2.4, 2.5, 3.0, 4.0 in 50, 75 mm

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

Beyond Blue

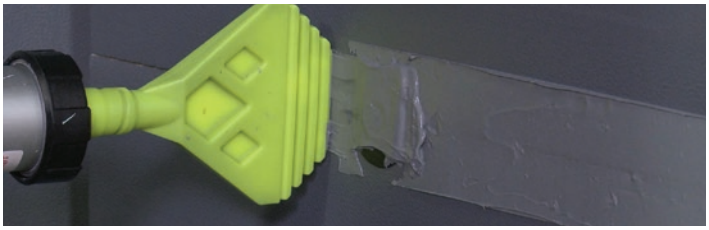
Featuring a new grey color and the same great performance, DuPont™ Styrofoam™ Brand XPS Insulation has transitioned to a new low-global-warming-potential formulation.

DuPont™ Thermax™ Brand polyisocyanurate insulation products

Properties*	Thermal resistance[1,2], R-value per inch (RSI per 25 mm)	Compressive strength, minimum, core foam, lb/in² (kPa)	Flexural strength, typical for 1" core foam, lb/in²	Water absorption, maximum, core foam, 2-hr results, % increase by volume	Water vapor permeance[3], perm	Dimensional stability[4], maximum, % linear change	CCMC Registry	Complies with CAN/ULC S704-11	Complies with ASTM C1289	Maximum use temperature, °F (°C)	Flame spread[5], maximum, core foam	Smoke developed, maximum, core foam	Board dimensions, ft	Board thickness, nominal, in
Test method	ASTM C518	ASTM D1621	ASTM C203	ASTM C209	ASTM E96	ASTM D2126					ASTM E84	ASTM E84		
DuPont™ Thermax™ XARMOR™ (ci)	6.5 (1.14)	25 (170)	55	0.1	≤0.04		08433-L	Y	Type I Class 2	250 (121)	25	<450	4 x 8	1.55, 2, 2.5, 3
DuPont™ Thermax™ Sheathing	6.5 (1.14)	25 (170)	40	0.1	<0.03	0.2	08433-L	Y	Type I Class 2	250 (121)	25	190	4 x 8	1.55, 2, 2.5, 3

[1]Aged R-value per 1" @ 75°F mean temperature. R-values are expressed in ft²·h·°F/Btu.
[2]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).
[3]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.
[4]Dimensional stability is for the thickness.
[5]These numerical flame spread ratings are not intended to reflect hazards presented by this or any other material under actual fire conditions.

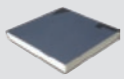
Note: Not all products are available in all parts of the country. Other product sizes are available on a made-to-order basis. Custom lengths of DuPont™ Thermax™ Brand Insulation products are available for orders of 7,500 board feet or more. Contact your DuPont representative with questions.



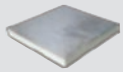
Choose the best DuPont™ Thermax™ Brand product for your project

DuPont™ Thermax™ Brand Insulations offer different facers to meet the needs of your diverse range of projects. Choose products for interior/exterior, exposed/covered, robust/economical applications.

DuPont™ Thermax™ XARMOR™ (ci) Exterior Insulation
4 mil gray facer
- Exterior continuous insulation
- Used in **DuPont™ Thermax™ Wall System**



DuPont™ Thermax™ Sheathing
1 mil smooth facer
- Multipurpose



DuPont™ LiquidArmor™ flashing materials

Properties*	Application	Chemistry	Application temperature, °F (°C)	Application thickness, mils	Tensile, psi	Elongation, %	Rain resistance[1], hr	Water vapor transmission, perms	AAMA 714
Test method					ASTM D412	ASTM D412		ASTM E96 method B	
DuPont™ LiquidArmor™ LT Flashing and Sealant	Trowel	Silicone	-20 - 120 (-29 - 49)	30 ±5	210	270	Immediate	3	Y

[1]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™ polyurethane foam sealant

Properties*	Flexural strength, parallel, lb/in²	Compressive strength, parallel, lb/in² (kPa)	Shear strength, parallel, lb/in² (kPa)	Apparent core density, lb/ft³ (kg/m³)	Water absorption, 5% by volume	Water vapor permeance @ 1" thick, perm	Cure time, min	Application temperature, °F (°C)	Sizes
Test method	ASTM C203	ASTM D1621	ASTM C273	ASTM D1622	ASTM D2842	ASTM E96			
DuPont™ Froth-Pak™ Foam Sealant	22.7	21.1 (145)	16.7 (115)	2.0 (32)	2.17	3.9	Tack-free[1] <1 min	60 - 90 (16 - 32)	Selection of kit sizes and refill systems available

[1]Actual cure time will depend on temperature, foam thickness, specific nozzle used, etc.

Polyurethane foam sealants and adhesives

Properties*	Cure time	Size	Yield[1]
DuPont™ Enerfoam™ Professional Foam Sealant	Tack-free <20 min; trim in 30 min	24 oz (680 g) can, reusable straw 24 oz (680 g) can, gun 30 oz (850 g) can, gun	775 ft (236 m) 970 ft (296 m) 1,450 ft (442 m)
DuPont™ Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant[2]	Tack-free <6 min; trim in 30 min; full cure in 1 hr	24 oz (680 g) can, reusable straw 24 oz (680 g) can, gun 30 oz (850 g) can, reusable straw 30 oz (850 g) can, gun	775 ft (236 m)[3] 970 ft (296 m)[3] 995 ft (303 m)[3] 1,450 ft (442 m)[3]
DuPont™ Great Stuff Pro™ Window & Door Polyurethane Foam Sealant[2]	Tack-free <9 min; trim in 1 hr; full cure in 12 hr	20 oz (567 g) can, reusable straw 20 oz (567 g) can, gun 24.5 oz (695 g) can, reusable straw 24.5 oz (695 g) can, gun	6-9 windows[4] 8-11 windows[4] 8-11 windows[4] 11-14 windows[4]

[1]For estimated yields at other product sizes, bead sizes and conditions, contact your DuPont representative.
[2]Actual cure time will depend on temperature, relative humidity and size of foam bead.
[3]Estimated yield under ideal conditions based on gun foam, 3/8" bead.
[4]Estimated yield (gun foam) under ideal conditions for 36" x 60" window, 3/8" wide gap, 1" deep, 3/8" bead.

DuPont™ self-adhered flashing products

Properties*	Face sheet	Adhesive[1]	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'	• 6 months of UV protection • Compatible with most sealants • Low-temperature application capability (25°F) • AAMA 711-20, Class A (no primer); Level 3 Thermal Exposure	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'	• UV resistance: Cover in 270 days • AAMA 711-13, Class A (no primer); Level 3 Thermal Exposure • Low-temperature application capability (25°F)	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'		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'		Jambs 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

[1]Adhesive system is based on 100% butyl elastomer with no asphalt/modified bitumen components.

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Form no. 43-D100889-enCA-0223 (02/23) CDP