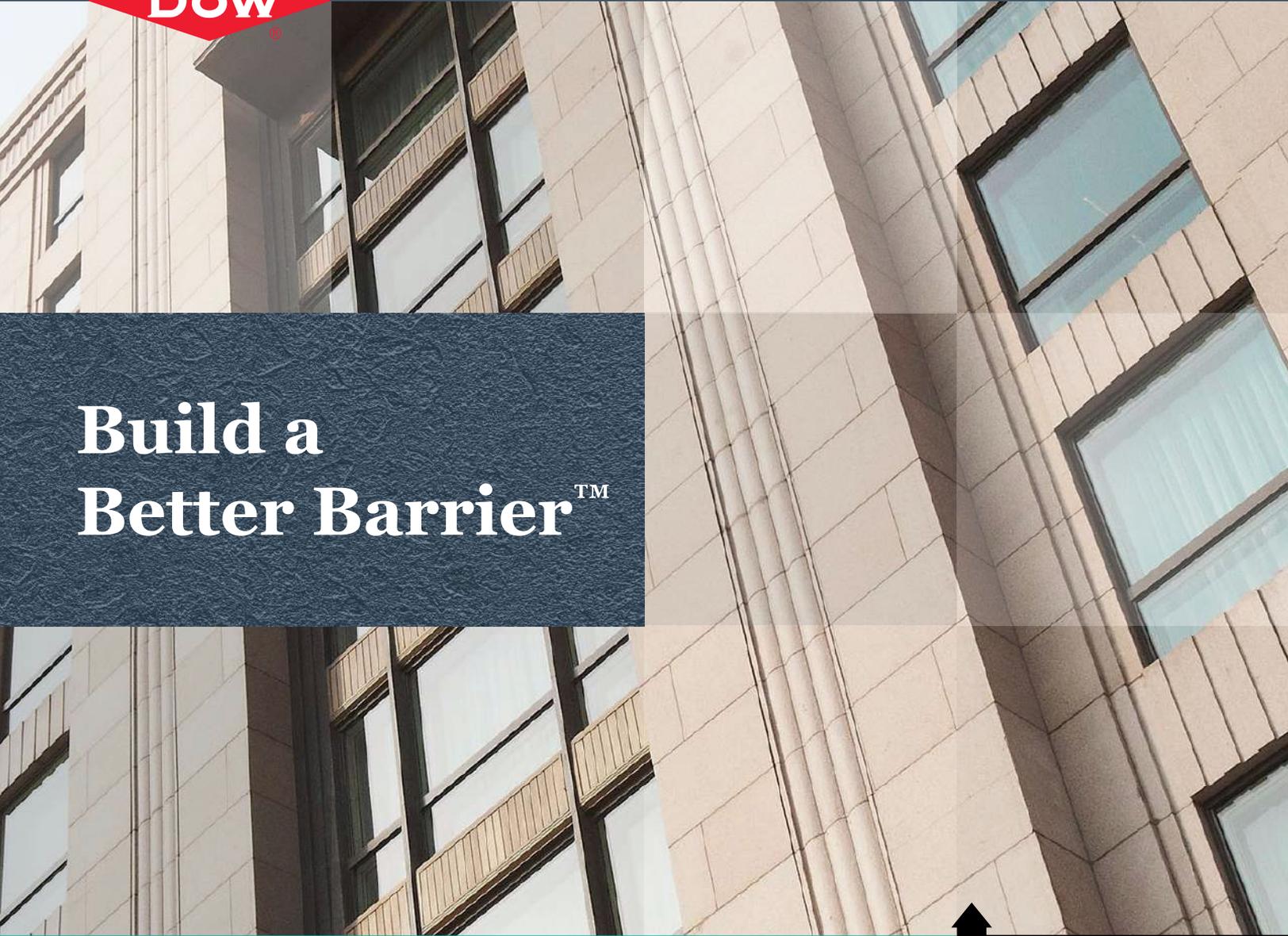




DOW

BUILDING SCIENCE



**Build a
Better Barrier™**



DOWSIL™ Silicone Air Barrier System

Overview

DOWSIL™

silicones by 

Air and moisture protection for more energy-efficient buildings

You know us. You trust us.

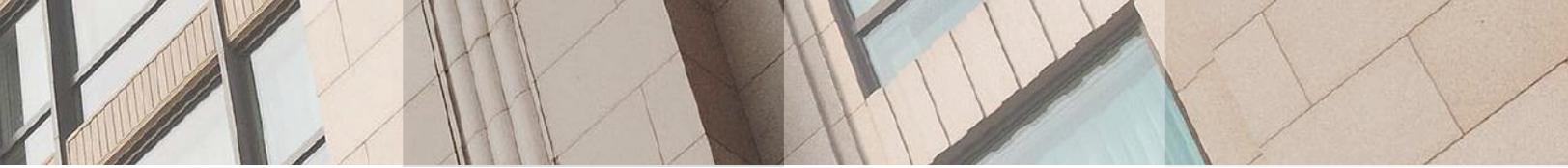
Meeting regulatory requirements for energy efficiency is a significant challenge that continues to grow as codes tighten and building owners demand more sustainable, near-zero-energy buildings. Fluid-applied air barrier systems can help to meet the installation and performance needs of modern building construction.

Drawing upon more than 40 years of successful silicone weatherproofing experience, Dow offers durable and reliable solutions for airtight and watertight performance. By bringing the key benefits of silicone technology to the air and weather barrier industry, Dow offers architects and contractors an edge over incumbent technologies.

The DOWSIL™ Silicone Air Barrier System is an air and weather barrier solution that helps to ensure energy efficiency and protection from the elements. As part of this system, DEFENDAIR™ 200C Air and Weather Barrier Coating addresses architects' needs for high-performance building designs:

- ABAA Evaluated per ABAA S0008 Standard for Air and Water-Resistive Barriers
- Can be specified as a low-build or medium-build fluid-applied air barrier
- Water-based formulation allows wet material to be cleaned up using water; no solvents are required
- Vapor-permeable
- Long-term UV resistance
- High temperature resistance with a service temperature range of -20°F to 300°F
- Elastomeric coating accommodates building movement
- Seamless cured membrane is continuous and does not form seams or laps
- Complete offering of compatible accessory materials
- One-coat spray application; may also be roller applied
- Low-VOC formulation
- Can be applied at temperatures as low as 20°F (-6°C)
- Primerless adhesion to most construction substrates
- NFPA Class A fire rating

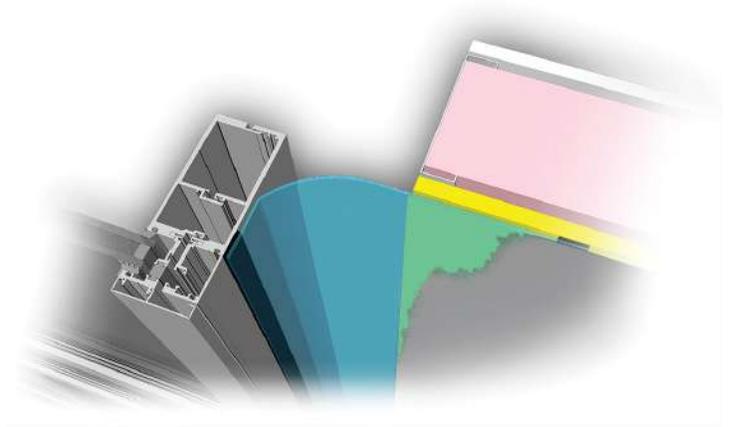
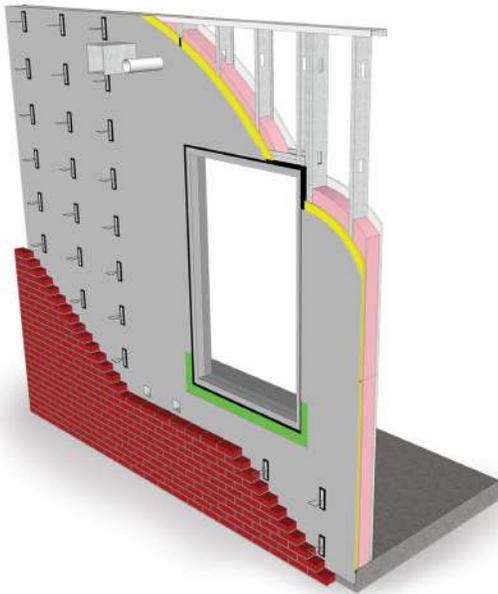




A silicone system for building protection

The DOWSIL™ Silicone Air Barrier System is a suite of fully compatible high-performance silicone technologies from Dow work in concert to help protect the entire building envelope in both new construction and renovation projects.

- DEFENDAIR™ 200C Air and Weather Barrier Coating
- DOWSIL™ DEFENDAIR™ 200 Primer
- DOWSIL™ Silicone Transition System (STS)
 - DOWSIL™ Silicone Transition Strips
 - DOWSIL™ Silicone Molded Corner- Silicone Transition Inside Molded Corner
- DOWSIL™ 758 Silicone Weather Barrier Sealant
- DOWSIL™ 791 Silicone Weatherproofing Sealant
- DOWSIL™ 778 Silicone Liquid Flashing



High Performance Building Solutions from Dow help you Build a Better Barrier™

Airtightness

Uncontrolled air leakage can result in increased energy use and costs. The DOWSIL™ Silicone Air Barrier System can help ensure the airtightness of the building envelope.

- DEFENDAIR™ 200C Air and Weather Barrier Coating has been ABAA Evaluated to have passed the rigorous material testing set by the ABAA S0008 Standard for Air and Water-Resistive Barriers.
- By securely adhering to challenging flashing materials and construction substrates, DOWSIL™ 758 Silicone Weather Barrier Sealant helps to ensure continuous sealing without additional penetrations from mechanical fasteners.

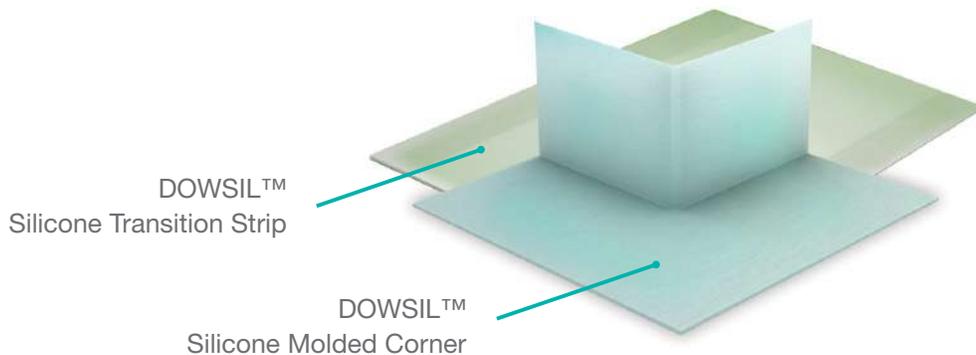
Temperature flexibility

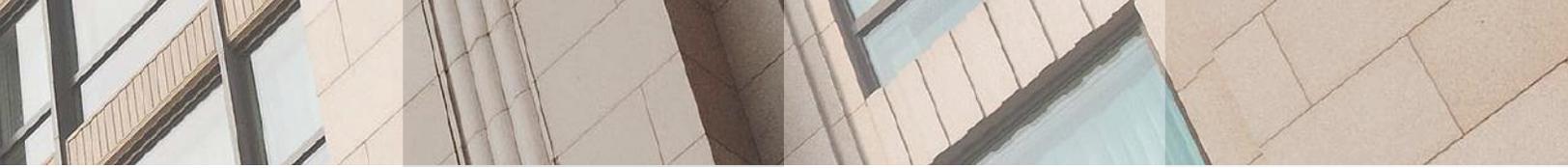
DEFENDAIR™ 200C Air and Weather Barrier Coating offers a durable airtight seal over a wide range of temperatures. It can be installed at temperatures as low as 20°F and has a service temperature range of -20°F to 300°F. As substrates expand and contract thermally, DEFENDAIR™ 200C Air and Weather Barrier Coating will remain flexible – moving with the substrates while maintaining its adhesion. When complemented by its other silicone accessory components (DOWSIL™ 791 Silicone Weatherproofing Sealant, DOWSIL™ 778 Silicone Liquid Flashing and DOWSIL™ Silicone Transition System), the DOWSIL™ Silicone Air Barrier System offers exceptional flexibility and durability while maintaining an airtight building envelope.

UV resistance

Ongoing exposure to sunlight and ultraviolet (UV) radiation especially during construction delays – is a reality often faced on construction projects. Compared to organic materials, silicones offer greater UV stability, making them the right choice for applications requiring temporary – or long-term – outdoor exposure.

- DEFENDAIR™ 200C Air and Weather Barrier Coating remains unaffected by UV exposure, making it an excellent choice for rainscreen applications where the barrier will be exposed to UV radiation. This allows design professionals more freedom in rainscreen applications, minimizing concern about how their designs will affect the air barrier performance.
- Extended sun exposure from unanticipated construction delays will not affect the performance of DEFENDAIR™ 200C Air and Weather Barrier Coating. With no limit on exposure time before the exterior cladding is installed, contractors need not worry if DEFENDAIR™ 200C Air and Weather Barrier Coating is left exposed.



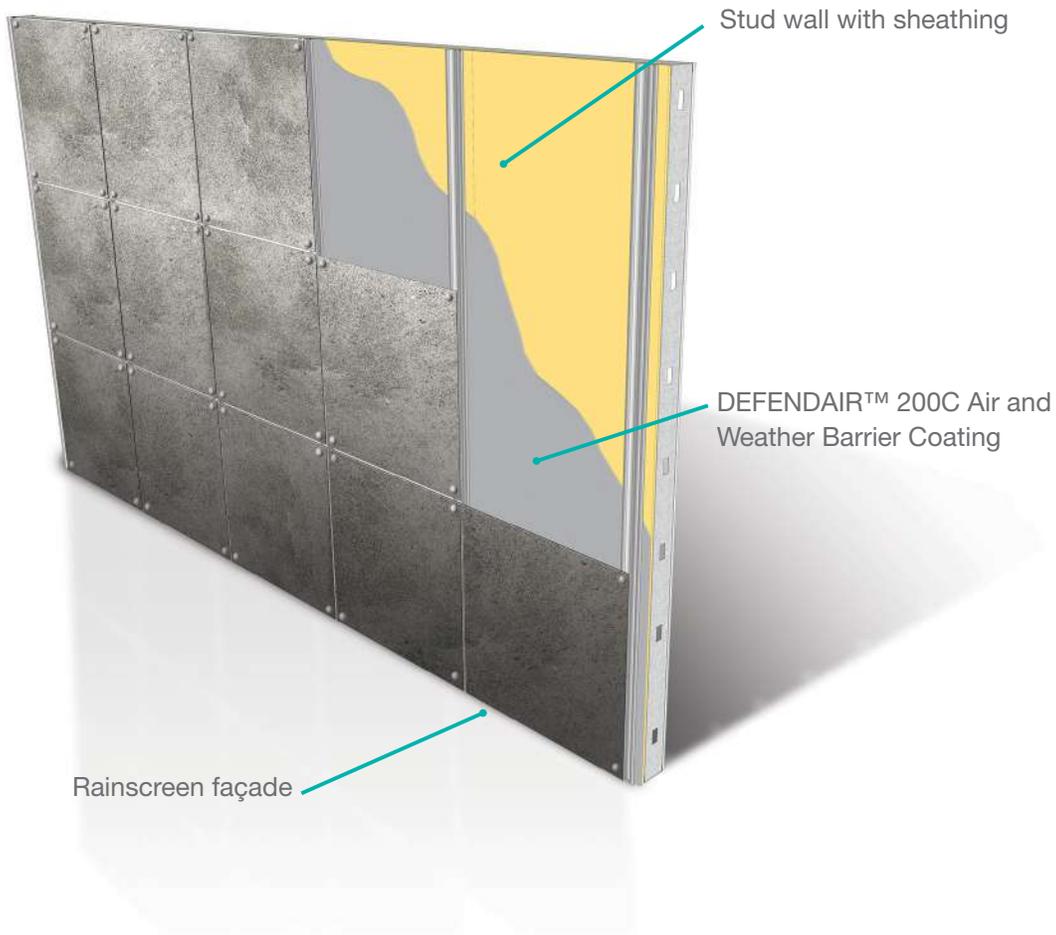


Weatherproofing

Expanding on Dow's successful history with weatherproofing sealants for joint sealing, our DOWSIL™ Silicone Air Barrier System helps to ensure weatherproof protection throughout the building envelope.

- DEFENDAIR™ 200C Air and Weather Barrier Coating helps to prevent water penetration but is vapor-permeable. This water-based coating dries to form a flexible membrane that is resistant to water penetration but allows water vapor to escape from inside the substrate. This mitigates concerns about potential corrosion and mold growth caused by moisture trapped inside wall assemblies.

- DOWSIL™ 791 Silicone Weatherproofing Sealant offers primerless adhesion to all materials of the DOWSIL™ Silicone Air Barrier System. Together, this sealant and other DOWSIL™ materials comprise a compatible system that offers long-term durability for the building envelope.



Components of the DOWSIL™ Silicone Air Barrier System

Air and weather barrier

DEFENDAIR™ 200C Air and Weather Barrier Coating is a water-based, fluid-applied silicone air and weather barrier for both renovation and new construction.

Applications:

- Suitable for use on many construction projects, including exterior sheathing, preformed panels, steel stud walls and rainscreen applications
- Adheres to common wall substrates, such as DensGlass, concrete masonry units (CMU), oriented strand board (OSB), plywood and others

Features/Benefits:

- ABAA Evaluated per ABAA S0008 Standard for Air and Water-Resistive Barriers
- Can be specified as a low-build or medium-build fluid-applied air barrier
- Water-based formulation allows wet material to be cleaned up using water; no solvents are required
- Vapor-permeable
- Long-term UV resistance
- High temperature resistance with a service temperature range of -20°F to 300°F
- Elastomeric coating accommodates building movement
- Seamless cured membrane is continuous and does not form seams or laps
- Complete offering of compatible accessory materials
- One-coat spray application; may also be roller applied
- Low-VOC formulation
- Can be applied at temperatures as low as 20°F (-6°C)
- Primerless adhesion to most construction substrates
- NFPA Class A fire rating

Transition system

The **DOWSIL™ Silicone Transition System** features high-performance precured 100 percent silicone rubber strips and corners – **DOWSIL™ Silicone Transition Strips** and **DOWSIL™ Silicone Transition Corners**.

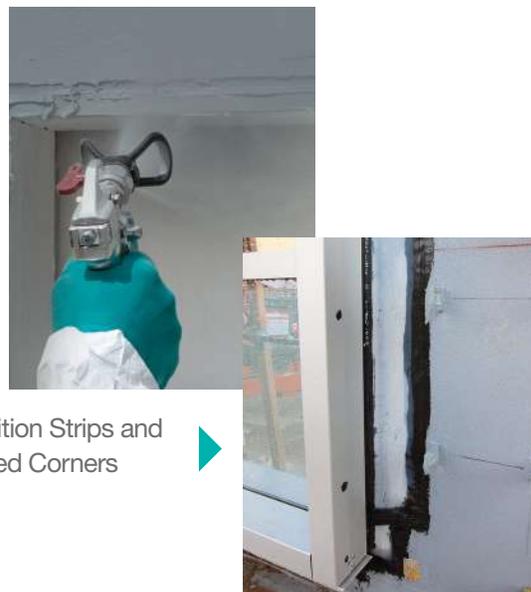
Applications:

- Sealing transitions from curtain wall, storefront and punched windows to the façade opening
- For inboard, outboard and in-plane designs

Features/Benefits:

- Continuous airtight transition from the window to the wall
- Easy to install using Dow approved silicone sealants – no mechanical fasteners required
- In-shop or onsite installation

DEFENDAIR™ 200C Air and Weather Barrier Coating applies easily over construction substrates to help ensure airtight performance



DOWSIL™ Silicone Transition Strips and DOWSIL™ Silicone Molded Corners simplify installation



Weatherproofing sealants

DOWSIL™ 758 Silicone Weather Barrier Sealant addresses the adhesion challenge posed by flashing materials, adhering to the most demanding substrates without need for a primer.

Applications:

- A sealing material for self-adhered and nonwoven spunbound weather-resistive barrier materials

Features/Benefits:

- Used to establish continuous, airtight protection
- Robust adhesion to a wide variety of materials, including fluid-applied air barriers, HDPE and other polyolefin materials used in sheet-applied air barriers

DOWSIL™ 791 Silicone Weatherproofing Sealant provides excellent silicone weatherproofing performance.

Applications:

- Airtight sealing of seams and joints when using DensGlass or other sheathing material
- Perimeter sealing of windows, doors and other building penetrations

Features/Benefits:

- Excellent for adhering DOWSIL™ Silicone Transition System to DEFENDAIR™ 200C Air and Weather Barrier Coating
- Excellent weatherability – virtually unaffected by sunlight, rain, snow, ozone

Through cavity flashing

DOWSIL™ 778 Silicone Liquid Flashing is a trowel-applied compound with a long open time that supports a durable, weatherproofing seal at building penetrations and complex transitions.

Applications:

- Window and door flashing
- General purpose sealing requirements for transition details behind the exterior façade

Features/Benefits:

- Compatible with DEFENDAIR™ 200C Air and Weather Barrier Coating
- Can also be used with other weather barrier types, including self-adhering and fluid-applied membranes
- Long tooling time to facilitate workflow of prepping a whole window opening
- High durometer for abrasion resistance
- Durable, flexible silicone chemistry
- Available in an aesthetically pleasing charcoal gray color as well as the traditional light green color

A Dow system warranty

The DOWSIL™ Silicone Air Barrier System is backed by high-quality limited warranty protection options of up to 15 years when installed per Dow published guidelines. Shorter-term warranty protection is available for system components used separately. Contact your Dow sales representative for full details.

For more information

Learn more about Dow's full range of High Performance Building solutions, including service and support, by visiting us online at [dow.com/buildingscience](https://www.dow.com/buildingscience).

Dow has sales offices, manufacturing sites and science and technology laboratories around the globe. Find local contact information at [dow.com/contactus](https://www.dow.com/contactus).



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