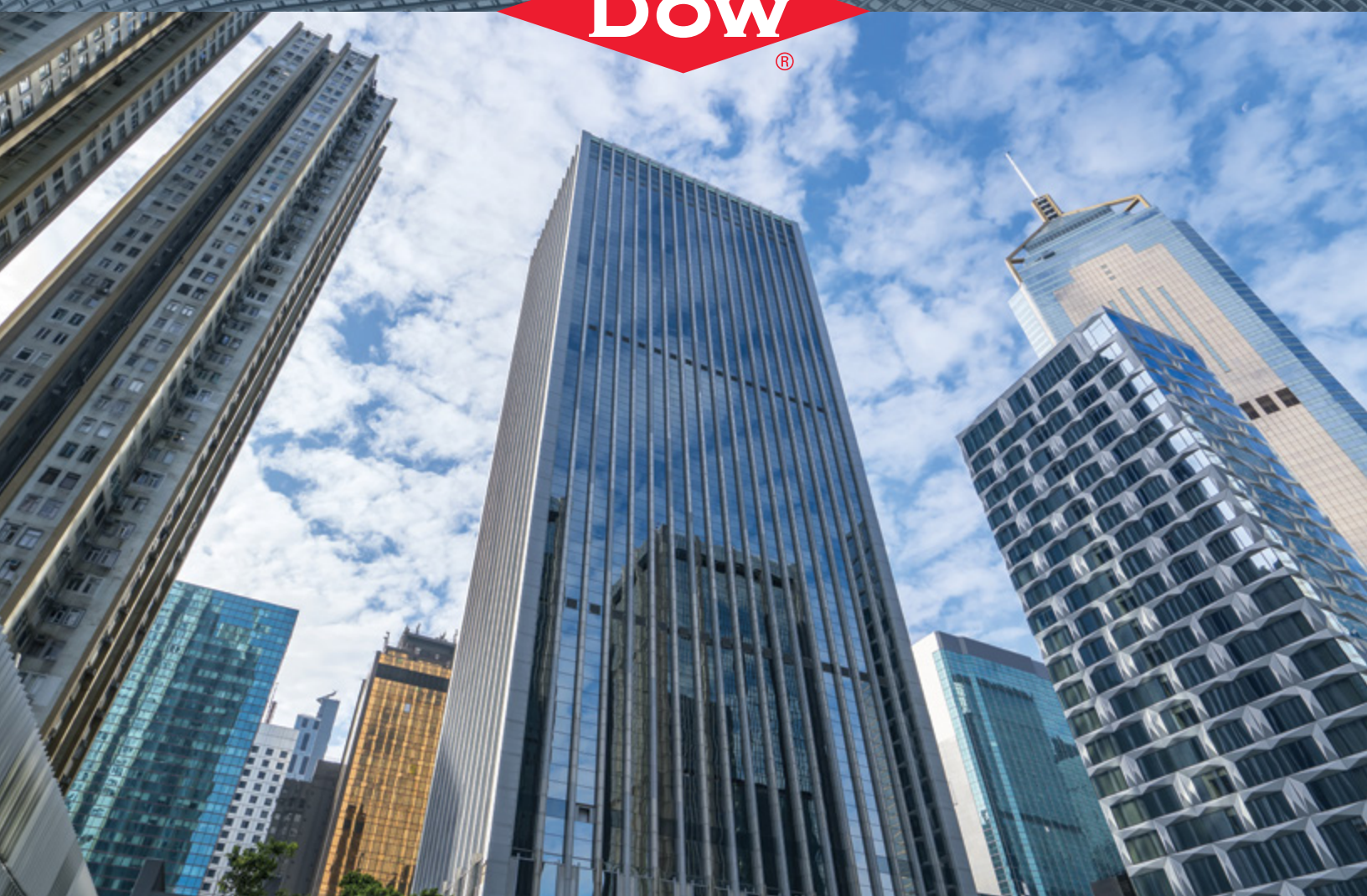


Silicone materials for new construction and restoration applications

Rely on the performance of the DOWSIL™ Brand



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Typical characteristics of silicone construction materials from Dow

Specifications writers: These values are not intended for use in preparing specifications.

Specifications writers: These values are not intended for use in preparing specifications.										Primer required ³																	silicones by 	
Product		Neutral-cure system	Ultimate tensile, psi (ASTM C1135)	Shore A durometer, points	Ultimate tensile, psi (ASTM D412)	Joint movement, %	1-part or 2-part cure	Tooling time, min.		All-temperature gunnability ¹	VOC content ² , g/L	Fluoropolymer paint	Silicone polyester paint	Anodized aluminum	Alodine-treated aluminum	Granite	Limestone	Concrete	Warranty	Chalking & cracking	UV light resistance	Colors available	Custom colors	Packaging				
Recommended application	Description																								Specifications & standards			
DOWSIL™ 756 SM Building Sealant Weatherproofing	Non-stain weatherproofing sealant for use on sensitive substrates.	Yes	N/A	30	N/A	±50	1-Part	30		Yes	22	No	No	No	No	No	Yes: 1200 OS/ Primer P	Yes: Primer P	20 Years	No	Excellent	7	Yes	Sausages Pails	• SWRI Validation • ASTM C 920, Type S, Grade NS, Class 50, Use NT, G, M, A, O • ASTM C 719 Joint Movement Capability, ±50%			
DOWSIL™ 121 Structural Glazing Sealant Structural Glazing, Glazing	A fast-cure, 1:1 mix ratio structural silicone sealant that simplifies installation and reduces repair time.	Yes	121	30	300	±25	2-Part	15-45		Apply > -10°F	< 25 g/L	Primer-C OS	Primer-C OS	Yes: 1200 OS	Yes: 1200 OS	N/A	N/A	N/A	20 Years	N/A	Excellent	Black Dark Gray	No	400 mL (2*200 mL) Cartridge	• SWRI Validation • ASTM C719 Class 25 (G, A, O) • ASTM C1184 Structural Sealant Specification			
DOWSIL™ 123 Silicone Seal Weatherproofing	Preformed, ultralow-modulus silicone extrusion; can be bonded to a wide variety of substrates; with-stands +200/-75% joint movement.	N/A	N/A	25	N/A	Extension: +200 Compression: -75	N/A	N/A		N/A	N/A	791 No	791 or 795	791 or 795	791 or 795	791 or 795	791 or 795	791 or 795	10 Years	No	Excellent	11	Yes	100-Foot Rolls	• Modified ASTM C 719 Joint Movement Capability, +200/-75% • Designed for new construction and restoration			
DOWSIL™ ALLGUARD Silicone Elastomeric Coating Waterproofing	One-part, field-pigmented, water-based silicone elastomer for waterproofing exterior above-grade substrates.	Yes	N/A	N/A	N/A	N/A	1-Part	N/A		Apply > 20°F	N/A	N/A	N/A	N/A	N/A	No	No	No	10 + 10 Years	No	Excellent	55	Yes	Pails	• SWRI Validation • Check data sheet for ASTM specs • Designed for new construction and restoration			
DOWSIL™ 758 Silicone Weather Barrier Sealant Waterproofing	One-part, neutral-cure silicone sealant; designed for adhering to common sheet or peel-and-stick weather-resistant barriers.	Yes	N/A	45	N/A	±25	1-Part	N/A		Yes	42	No	No	No	No	Primer P	Primer P	Primer P	N/A	No	Excellent	White	Yes	Sausages	• ASTM C 719 Joint Movement Capability, ±25% • ASTM C920, Type S, Grade NS, Class 25, Use G, A, O			
DOWSIL™ 790 Silicone Building Sealant Weatherproofing	One-part formulation cures to a durable, flexible and ultralow-modulus silicone rubber joint seal; offers excellent unprimed adhesion to masonry.	Yes	N/A	15	N/A	Extension: +100 Compression: -50	1-Part	10-20		Yes	43	Yes: 1200 OS	Yes: 1200 OS	Yes: Test/ 1200 OS	Yes: 1200 OS	No	1200 OS	No	20 Years	No	Excellent	13	Yes	Cartridges Sausages Pails	• SWRI Validation • ASTM C 920, Type S, Grade NS, Class 100/50, Use T, NT, M, G, A, O • ASTM C 719 Joint Movement Capability, +100/-50%			
DOWSIL™ 791 Silicone Weatherproofing Sealant Weatherproofing	One-part, medium-modulus sealant offers unprimed adhesion to most window frame materials and excellent tear strength.	Yes	N/A	30	N/A	±50	1-Part	15		Yes	46	No	No	No	No	No	Yes: 1200 OS/ Primer P	Yes: Primer P	20 Years	No	Excellent	7	Yes	Cartridges Sausages	• SWRI Validation • ASTM C 920, Type S, Grade NS, Class 50, Use NT, M, G, A			
DOWSIL™ FC Parking Structure Sealant Weatherproofing	Two-part, fast-curing, self-leveling sealant that cures to an ultralow-modulus silicone rubber for use in horizontal joints.	Yes	N/A	60 Shore OO	N/A	Extension: +100 Compression: -50	2-Part	N/A		Yes	30	N/A	N/A	Yes	Yes	N/A	N/A	No	5 Years	No	Excellent	Gray	No	Sausages	• ASTM C 719 Joint Movement Capability, +100/-50%			
DOWSIL™ SL Parking Structure Sealant Weatherproofing	One-part, self-leveling sealant that cures to an ultralow-modulus silicone rubber for use in horizontal joints.	Yes	N/A	50 Shore OO	N/A	Extension: +100 Compression: -50	1-Part	N/A		Yes	30	N/A	N/A	N/A	N/A	N/A	N/A	No	5 Years	No	Excellent	Dark Gray	No	Cartridges Pails	• ASTM C 719 Joint Movement Capability, +100/-50%			
DOWSIL™ NS Parking Structure Sealant Weatherproofing	One-part, non-sagging sealant that cures to a low-modulus silicone rubber for use in vertical and horizontal joints.	Yes	N/A	15	N/A	Extension: +100 Compression: -50	1-Part	10-20		Yes	37	Yes: 1200 OS	Yes: 1200 OS	Yes: 1200 OS	Yes: 1200 OS	No	1200 OS	No	5 Years	No	Excellent	Gray	No	Cartridges Pails	• ASTM C 920, Type S, Grade NS, Class 100/50, Use T • ASTM C 719 Joint Movement Capability, +100/-50%			
DEFENDAIR™ 200C Air and Weather Barrier Coating Weatherproofing	100% silicone liquid-applied air and weather barrier designed to protect against air infiltration and water penetration.	Yes	N/A	N/A	>200	N/A	1-Part	15-45		Apply > 20°F	< 19	N/A	N/A	N/A	N/A	N/A	N/A	Yes	10 or 15 Years	No	Excellent	Gray	No	Pails	• ABAA • NFPA 285			
DOWSIL™ 778 Silicone Liquid Flashing Weatherproofing	One-part silicone sealant for weatherproofing at window and door openings and other building transitions.	Yes	N/A	40	210	±25	1-Part	30		Apply > -20°F	N/A	N/A	N/A	No	No	N/A	N/A	Yes	10 or 15 Years	No	Excellent	Gray Light Green	No	Sausages	• ASTM			
DOWSIL™ 795 Silicone Building Sealant Structural Glazing, Glazing, Weatherproofing	One-part formulation cures to durable, flexible seal that can accommodate ±50% movement in properly designed expansion and control joints for both new construction and remedial applications.	Yes	80	35	170	±50	1-Part	20-30		Yes	28	Yes: 1200 OS	No	No	No	No	Yes: 1200 OS/ Primer P	Yes: Primer P	20 Years	No	Excellent	15	Yes	Cartridges Sausages Pails	• SWRI Validation • ASTM C 1184, Specification for Structural Silicone Sealants • ASTM C 920, Type S, Grade NS, Class 50, Use NT, G, A, O			
DOWSIL™ 983 Structural Glazing Sealant Structural Glazing, Glazing	Two-part formulation cures to a high-modulus elastomeric adhesive/ sealant. Tested in impact glazing systems for use in hurricane- and blast-resistant installations.	Yes	160	40	300	±25	2-Part	12-25		Apply > 50°F	18	Yes: 1200 OS/ Primer-C	No	No	No	N/A	N/A	N/A	20 Years	No	Excellent	Gray Black	No	Pails Drums	• ASTM C 1184, Specification for Structural Silicone Sealants • ASTM C 920, Type M, Grade NS, Class 25			
DOWSIL™ 995 Silicone Structural Sealant Structural Glazing, Glazing	One-component, shelf-stable, neutral-cure; formulated for silicone structural glazing; also used for impact-resistant protective glazing in high-performance window film applications.	Yes	170	40	350	±50	1-Part	10-20		Yes	30	No	No	No	No	No	N/A	N/A	20 Years	No	Excellent	Black Gray White	No	Cartridges Pails Drums	• SWRI Validation • ASTM C 1184, Specification for Structural Silicone Sealants • ASTM C 920, Type S, Grade NS, Class 50, Use NT, G, A • ASTM C 719 Joint Movement Capability, ±50%			
DOWSIL™ 999A Building and Glazing Sealant Glazing	Easily applied, one-part formulation that cures to produce a durable, flexible wet glazing and curtainwall seal.	No	N/A	25	N/A	±25	1-Part	5-10		Yes	40	Yes	No	Yes: 1200 OS	Yes: 1200 OS	N/A	N/A	N/A	10 Years	No	Excellent	Clear & 5 Colors	Yes	Cartridges Pails	• FDA Regulation 21 CFR 177.2600 subject to end use compliance • ASTM C 920 • USDA authorized for use in federally inspected meat and poultry plants, classified as USDA-P1			

N/A = Not Applicable

NOTE: Photos in this brochure depict applications for DOWSIL™ Products. Unless specifically stated, endorsement of specific products is not implied.

¹ -20 to 122°F

² For a VOC data sheet for a specific sealant color, please send your request to product.inquiry@dow.com.

³ All substrates and sealant combinations must be field tested to confirm general recommendations from this table.

791 = DOWSIL™ 791 Silicone Weatherproofing Sealant

795 = DOWSIL™ 795 Silicone Building Sealant

1200 OS = DOWSIL™ 1200 OS Primer

Primer-C = DOWSIL™ Primer-C

Primer P = DOWSIL™ Construction Primer P



silicones by



Choose Dow – a Building Science leader

Dow works with industry professionals around the world to develop options to improve the energy efficiency of buildings, reduce the eco-footprint of construction materials, and improve the health and safety of building occupants.

Whether you are building a new structure or restoring an existing one, silicone construction materials and technical support from Dow can help you develop integrated options for a wide range of high performance building applications. A world leader in the creation of innovative materials and systems based on silicone technology, Dow Building Science offers a broad line of structural and protective glazing sealants, weatherproofing sealants, adhesives, and weatherproof coatings for new construction and restoration applications.

Dow offers high-quality products, valuable design services, excellent warranty protection, and knowledgeable local technical service and support around the world. With decades of global industry experience, Dow offers options to help you succeed.

Lasting benefits

Construction materials from Dow have a life expectancy up to three times longer than organic materials in the same applications. Unlike organic alternatives, silicones are virtually unaffected by ultraviolet (UV) light, rain, snow or temperature extremes. Silicone technology helps buildings endure the elements ... for years to come.

Addressing changing expectations

Architects and builders have long relied on Dow for innovative options. Dow Building Science is developing innovations for the next generation of building construction, including high-efficiency insulation, LED lighting, thermal management systems, and the incorporation of photovoltaic cells and solar panels into building design. Taking a holistic approach, Dow brings together knowledge from across the company to help customers address the challenges of sustainable building construction.

Restore for more

And while Dow is focused on the future, sometimes sustainability means revitalizing working buildings. When you're facing restoration challenges, our products

offer you the ability to get more and do more – whether you're looking for greater design freedom, more protection from the elements or more job-site productivity. You don't have to start from the ground up to get the benefits of the Dow Warranty Programs – that's how confident we are in our products' quality and performance.

The support you need

When you work with Dow, you tap into the technical resources and knowledge of the world's largest silicone producer, including the industry's most extensive bank of silicone performance data. Around the world, working out of state-of-the-art technical service centers, Dow construction materials specialists offer the products, knowledge and service you need. They can show you how the performance value of our products translates into bottom line savings – and offer you easy access to our latest developments in sustainable and high performance building technologies.

For the appearance, performance and return on investment you expect – and the technical knowledge and support you need – choose high performance silicone construction materials from Dow.



High-performance product showcase

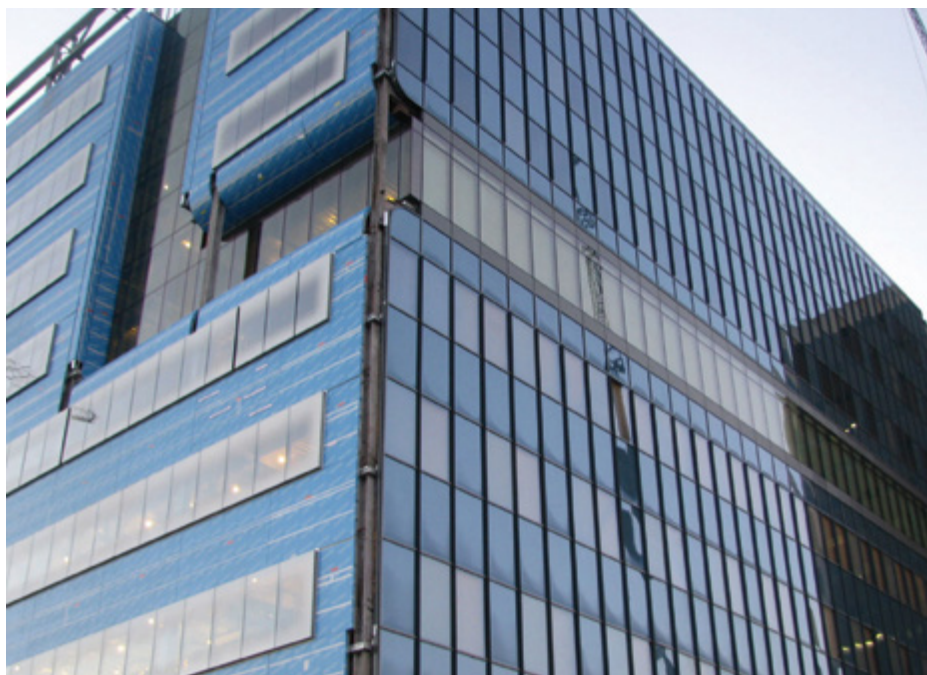
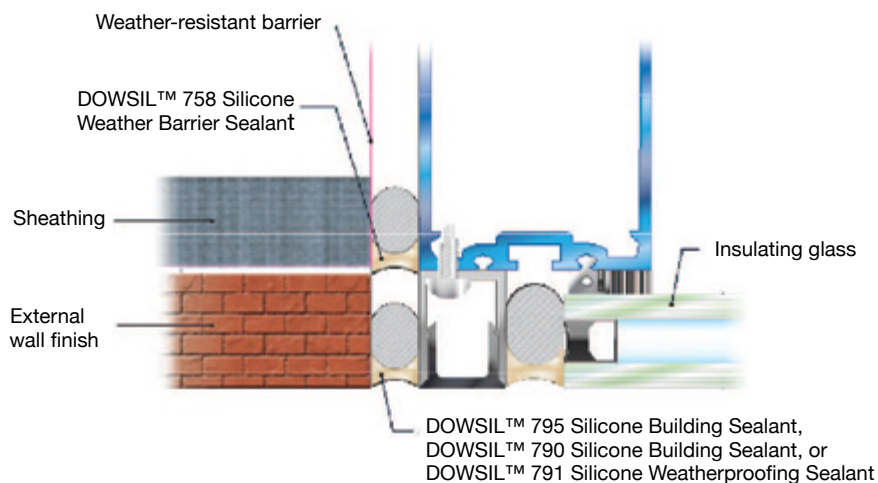
DOWSIL™ 758 Silicone Weather Barrier Sealant

DOWSIL™ 758 Silicone Weather Barrier Sealant brings long-term durability and ease-of-use for sealing challenging weather barrier substrates. Its consistent adhesion performance and compatibility outperform traditional sealants. And with $\pm 25\%$ movement capability, architects benefit from increased design flexibility.

Architectural recommendations

To achieve a sufficient durability of the seal, the sealant joint should be designed so that the maximum expected sealant movement, including thermal, settlement and live load, does not exceed 25 percent. Dow recommends consulting with the flashing manufacturer for details on the movement capability of flashing materials as used in your joint configuration.

More information and technical data sheets are available online at dow.com/758 or call Dow Customer Service at +1 800 248 2481.



Unprimed adhesion to highly challenging materials

- Excellent adhesion to a wide range of building materials, including polymeric surfaces that are traditionally difficult to adhere to, such as peel-and-stick weather-resistant barriers
- Priming not required on most surfaces
- Usable over wide temperature range
- Adheres to many polyethylene-film-based weather-resistant barriers, spun-bonded polyolefin, and fibrous or woven air barriers
- Adheres to many other sealing elements such as flashing or elastomeric liquid-applied weather barriers and many common fenestration element materials such as anodized aluminum, vinyl, PVC, powder coat, paint and fluoropolymer coatings
- UV resistant
- Excellent durability; does not become brittle or crack
- Movement capability of ± 25 percent in a properly designed joint
- SWRI approved



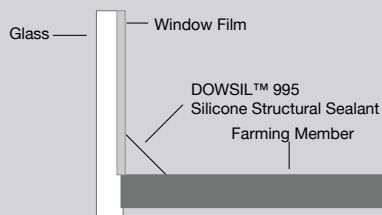
Kaleida Health Global Vascular Institute, Buffalo, New York.

The architects of the Kaleida Health Global Vascular Institute in Buffalo, N.Y., adopted state-of-the-art weather barrier technology to help ensure that the new hospital will withstand the city's varying climate conditions. Finding a sealant for the critical waterproofing membrane on the outside of the building was a challenge, though. DOWSIL™ 758 Silicone Weather Barrier Sealant addressed that challenge.

Photo credit: Kaleida Health and the Henry Company

Impact-resistant protective glazing

- Available in black, gray and white
- Excellent adhesion, tensile and tear strength make it an excellent choice for use as a glazing sealant in high-performance protective window systems that increase personal safety from flying glass
- Primerless, one-part product is a simple, more cost-effective option for impact-resistant window systems than mechanical attachments
- Tolerates the differential thermal and windload movements found in structural glazing applications and the severe stresses required of an impact-resistant glazing product
- Can be used with most common building materials; compatible with two-part silicone insulating glass seals
- SWRI approved
- 20-year Limited Warranty (see page 16)



DOWSIL™ 995 Silicone Structural Sealant anchors a retrofit protective window film to the window frame.

DOWSIL™ 995 Silicone Structural Sealant

Designed for excellent adhesion in structural applications, including factory or field glazing, DOWSIL™ 995 Silicone Structural Sealant adheres to glass, reflective glass, anodized aluminum, granite and most paints, including fluoropolymer-based paints. It exhibits a medium modulus, which offers an extremely high tensile adhesion strength of 150 psi. It is also very tough, with a tear strength of 49 ppi.

DOWSIL™ 995 Silicone Structural Sealant has also come to the forefront as the product of choice for impact-resistant protective glazing systems, such as the 3M Ultraflex Window System. These systems combine the elasticity of high-performance window films and DOWSIL™ Brand One-Part Silicone Elastomeric Sealant used for window glazing to produce a stretchable, flexible membrane that helps capture and absorb energy caused by severe weather, hard impacts and seismic



forces. The result is increased personal safety from flying glass both inside and outside the building.

Architectural recommendations

The design of the silicone structural joint must be prepared by a design professional and based upon industry-accepted guidelines. Structural applications and warranties require testing and written print review by the Dow Technical Service staff. Similarly, film systems incorporating DOWSIL™ 995 Silicone Structural Sealant are designed and tested to address specific impact test requirements.

More information and technical data sheets are available online at dow.com/995 or call Dow Customer Service at +1 800 248 2481.

Lloyd D. George Federal Courthouse, Las Vegas, Nevada. The Lloyd D. George Federal Courthouse is a silicone structural glazing project designed to offer increased protection to building occupants in the event of a nearby bomb blast.

Silicone sealants and impact-resistant window systems

Silicone sealants, like DOWSIL™ 995 Silicone Structural Sealant, have found success as glazing sealants in all three major impact-resistant window systems: in laminated window systems typically specified for new construction, in retrofit window film systems, and in curtainwall structural glazing projects specified to withstand severe weather and resist bomb blasts.

In all three applications, DOWSIL™ 995 Silicone Structural Sealant is specified for its ability to maintain positive adhesion, while window frames bend and twist under a range of stresses. While functioning as a trouble-free, long-lasting glazing sealant, it works in tandem with the reinforced glass to reduce the potential for broken glass being blown from its frames, the leading cause of injuries in events like terrorist bombings or hurricanes.



In controlled bomb-blast testing, 12 kilos of TNT were exploded 6.5 meters from a 12 x 12-meter glass curtainwall panel, structurally glazed on all four sides with a DOWSIL™ Brand Silicone Structural Glazing Sealant. While the glass broke, the facade stayed largely in place, thanks to the strength and flexibility of the sealant.

DOWSIL™ 790 Silicone Building Sealant

Because of its excellent movement capability, DOWSIL™ 790 Silicone Building Sealant is one of the best-performing products for stone curtainwall and masonry construction. It is used in expansion and control joints, precast concrete panel and seismic joints, exterior insulation and finish system (EIFS) joints, and curtainwall and mullion joints.

DOWSIL™ 790 Silicone Building Sealant quickly cures to a durable, flexible seal. Its low-modulus characteristics and extension/compression recovery make it especially effective for sealing expansion and control joints that experience extreme movement. It is also recommended as a remedial sealant for joints in which other materials have weathered or failed due to excessive movement.

Architectural recommendations

To help ensure performance under all temperature variations at the time of installation, good architectural practice recommends that joint width should be two times the total expected thermal joint movement, plus tolerances, and a minimum of 1/4 inch (6.4 mm) for this product. This product is not suitable as a structural adhesive.

More information and technical data sheets are available online at dow.com/790 or call Dow Customer Service at +1 800 248 2481.

Excellent movement capability and masonry adhesion

- Available in 11 standard colors; custom colors available
- Low modulus; low stress; extension/ compression capability up to +100/-50 percent of the original joint width without affecting adhesion
- Approved by all major EIFS manufacturers; SWRI approved
- Frequently used in buildings designed to withstand specified seismic movements
- Primerless adhesion to concrete
- 20-year Limited Warranty (see page 16)



Mandalay Bay Resort & Casino, Las Vegas, Nevada. At 43 stories, the resort's 660,000-square-foot exterior window wall and glass slab gleam with 24-karat gold. Custom colored DOWSIL™ 790 Silicone Building Sealant was selected for its excellent movement capabilities to seal joints between EIFS and aluminum framing. DOWSIL™ 795 Silicone Building Sealant, also gold, was used to seal glass to metal.

Photo credit: Mandalay Bay

DOWSIL™ 791 Silicone Weatherproofing Sealant

An excellent performance value, DOWSIL™ 791 Silicone Weatherproofing Sealant is an economical option for quality silicone weathersealing. Especially suited for perimeter sealing around windows and doors, DOWSIL™ 791 Silicone Weatherproofing Sealant is useful for a variety of sealing applications, including expansion and control, precast concrete panel, curtainwall and mullion joints, and internal seals and end dams. This product offers one-part, primerless adhesion to most building materials and cures to a tough, flexible seal that can accommodate significant movement.

Architectural recommendations

To help ensure performance under all temperature variations at the time of installation, good architectural practice recommends that joint width should be two times the total expected thermal joint movement, plus tolerances, and a minimum of 1/4 inch (6.4 mm) for this product. This product is not suitable as a structural adhesive.

More information and technical data sheets are available online at dow.com/791 or call Dow Customer Service at +1 800 248 2481.

General weatherproofing sealant

- Available in black, white, precast white, gray, limestone and bronze
- Accommodates movement up to ± 50 percent of the original joint width in a properly designed 2:1 joint without affecting adhesion
- Can be used without a primer on most common building materials, including stone, masonry, ceramic, granite, anodized aluminum and many fluoropolymer paints; compatible with two-part silicone insulating glass seals
- SWRI approved
- 20-year Limited Warranty (see page 16)



Architectural-grade sealant with excellent adhesion

- Available in 11 standard colors; custom colors available
- Accommodates movement up to ± 50 percent of the original joint width in a properly designed 2:1 joint without affecting adhesion; cured material resists tear propagation
- Can be used with most common building materials; compatible with two-part silicone insulating glass seals
- SWRI approved
- 20-year Limited Warranty (see page 16)



DOWSIL™ 795 Silicone Building Sealant

An excellent choice for structural and non-structural glazing of glass, metal and plastic and for adhering stiffeners to building panels, DOWSIL™ 795 Silicone Building Sealant is also excellent for general weatherproofing applications, including perimeter sealing of door and window framing. It is a neutral, one-part adhesive/sealant for new construction and restoration applications that cures to produce a durable and flexible seal.

Architectural recommendations

For weathersealing applications, to help ensure performance under all temperature variations at the time of installation, good architectural practice recommends that joint width should be two times the total expected thermal joint movement, plus tolerances, and a minimum of 1/4 inch (6.4 mm) for this product. Structural applications and warranties require testing and written print review by the Dow Technical Service staff.

More information and technical data sheets are available online at dow.com/795 or call Dow Customer Service at +1 800 248 2481.



Motorola Phase I Building, Tempe, Arizona.

Consultants specified DOWSIL™ 795 Silicone Building Sealant for 2- and 4-sided structural glazing on this magnificent Motorola building. The product was also used to weatherseal the building, owned by developer/general contractor Ryan Companies of Phoenix.

Photo credit: Ryan Companies, Developer/General Contractor

Structural glazing capabilities and a controllable cure rate

- Available in gray and black
- Accommodates movement up to ± 25 percent of the original joint width in a properly designed 2:1 joint without affecting adhesion; cured material resists tear propagation
- Can be used with most common building materials
- 20-year Limited Warranty (see page 16)

DOWSIL™ 983 Structural Glazing Sealant

Designed for structural adhesive/sealant applications, such as factory glazing and curtainwall production, where fast cure is needed for rapid throughput of finished units, DOWSIL™ 983 Structural Glazing Sealant is a high-modulus product offering unprimed adhesion to most common construction materials. It has physical properties sufficient for structural adhesive applications, a noncorrosive by-product, excellent weatherability and durability, and recovers after repeated extensions and compressions. This is a two-part material that requires pumping and metering equipment designed for in-shop use.

Architectural recommendations

The design of the silicone structural joint must be prepared by a design professional and based upon industry-accepted guidelines. Structural applications and warranties require testing and written print review by the Dow Technical Service staff.

More information and technical data sheets are available online at dow.com/983 or call Dow Customer Service at +1 800 248 2481.

DOWSIL™ 756 SM Building Sealant

Distinctive building exteriors of granite, limestone, marble and composite panels create a landmark of modern design, but bring challenges in long-term weathersealing aesthetics. Featuring a proprietary-formulation surface-modified (SM) technology, DOWSIL™ 756 SM Building Sealant addresses those challenges.

Designed for weathersealing sensitive substrates, such as porous stone and metal panels, DOWSIL™ 756 SM Building Sealant features a low-friction surface that reduces dirt pickup and significantly reduces fluid migration that could lead to staining. The cured sealant's aesthetically appealing dry, matte finish feels surprisingly slippery to the touch, revealing its dirt-resistant quality. And its low rub-off reduces aesthetic problems during window washing and maintenance. Its silicone chemistry makes it one of the best choices for long-life performance.

This high-performance, elastomeric, one-part silicone sealant cures to a durable, flexible, weather-resistant seal with excellent adhesion to most building materials, including both porous substrates and painted metals.

Architectural recommendations

To help ensure performance under all temperature variations at the time of installation, good architectural practice recommends that joint width should be two times the total expected thermal joint movement, plus tolerances, and a minimum of 1/4 inch (6.4 mm) for this product. This product is not suitable as a structural adhesive.

More information and technical data sheets are available online at dow.com/756 or call Dow Customer Service at +1 800 248 2481.

Study results

Effects of Weatherproofing Sealants on Building Aesthetics, co-authored by A.T. Wolf, Ph.D., and V.K. O'Neal, provides the results of a two-year study of sealant-related phenomena that affect building aesthetics. The article can be purchased from ASTM International's Standards & Publications Digital Library at astm.org.

Surface modified for lasting aesthetics

- Surface modified silicone chemistry offers a distinctive dry matte finish
- Reduced dirt pickup compared with traditional silicone sealants
- An excellent sealant choice for sensitive substrates
- Medium modulus; extension-compression capability up to ±50 percent of original joint width without affecting adhesion
- Can be used with many common building materials, including most glass, metal, brick, granite, masonry and fluoropolymer-painted substrates
- Available in standard colors of adobe tan, white, limestone, gray, bronze and black; special colors of anodized aluminum, sandstone, champagne, natural stone, aluminum gray, medium gray and charcoal; custom colors also available
- SWRI approved
- Available Weatherseal and Non-Staining Warranties (see page 16)



Exceptional performance ... lasting beauty

- Adheres to masonry, stone, freshly cured and damp concrete, fluted block, stucco, EIFS, most trims and painted surfaces and most caulks, sealants (including silicones) and preformed seals, such as DOWSIL™ 123 Silicone Seal
- Extensive color palette: more than 55 standard colors; custom colors available; field-pigmentable at distributors for rapid delivery
- Primerless on many substrates; neat and easy to apply with roller, power roller, brush or spray; matte finish hides roller marks
- Bridges cracks up to 1/16 inch (1.6 mm); accommodates movement; resists degradation due to sunlight, rain, snow and temperature extremes
- When properly applied, will not crack, chalk, peel or blister
- SWRI approved
- 10-year Waterproofing Performance Limited Warranty, plus 10-year recoat warranty (see page 16)
- Meets current federal guidelines for Volatile Organic Compounds (VOCs) for architectural coatings



DOWSIL™ ALLGUARD Silicone Elastomeric Coating

With more than 55 standard colors from which to choose, plus a custom color capability, DOWSIL™ ALLGUARD Silicone Elastomeric Coating offers you excellent aesthetic flexibility with solid waterproofing performance.

DOWSIL™ ALLGUARD Silicone Elastomeric Coating is a one-part, water-based, 100 percent silicone elastomer that seals out water on exterior above-grade walls. It requires no primer on most substrates and cures to form a flexible membrane that can handle the normal movements of seasonal thermal expansion-contraction, even on EIFS panels. Cured DOWSIL™ ALLGUARD Silicone Elastomeric Coating can withstand hurricane-force, wind-driven rain without penetration. It also allows moisture vapor inside the substrate to escape, helping to prevent blistering and delamination that can occur with non-breathable coatings.

Used in restoration projects when organic urethane and acrylic coatings, paints and penetrants have failed, DOWSIL™ ALLGUARD Silicone Elastomeric Coating also is an excellent choice for new construction projects. It is warranted for 10 full years of waterproofing performance in commercial installations. And Dow's recoat program offers an additional 10-year performance warranty with a single-coat application (14 mils wet/7 mils dry), offering two decades of protection from a single-source provider.

Architectural recommendations

Excellent waterproofing performance is achieved with a 10 mil dry film. With prior field adhesion testing, DOWSIL™ ALLGUARD Silicone Elastomeric Coating can be applied without a primer on many substrates. To protect the long-term appearance of the facade, drip edges should be installed in areas prone to concentrated water run-down to channel the water away from coated surfaces. Surfaces exposed to concentrated run-down may appear dirty or streaky over time, and the coating may become hard to clean.

For more information, a technical data sheet or the *DOWSIL™ ALLGUARD Silicone Elastomeric Coating Application Guide*, visit dow.com/allguard or call Dow at +1 800 248 2481.



Rosen Plaza, Orlando, Florida. The 14-story Rosen Plaza hotel had several leaks, and its old acrylic exterior coating was beginning to deteriorate, before it was restored with silicone sealants, including DOWSIL™ 123 Silicone Seal. Architecturally enhanced with new EIFS banding around the windows, the last step for the restored facade was a new color scheme: gold and tan custom colors of DOWSIL™ ALLGUARD Silicone Elastomeric Coating. The bright, refreshed look of the Rosen Plaza was so well received that the owners decided to recoat their nearby 24-story Rosen Centre hotel using DOWSIL™ ALLGUARD Silicone Elastomeric Coating as well.

DOWSIL™ 123 Silicone Seal
DOWSIL™ ALLGUARD Silicone Elastomeric Coating

Photo credit: Rosen Plaza Hotel

DOWSIL™ 123 Silicone Seal

DOWSIL™ 123 Silicone Seal is a preformed silicone extrusion that serves as a fast, efficient replacement for failed weatherseals and an excellent problem-solver in new construction applications. It can be bonded to a wide variety of substrates using DOWSIL™ 795 Silicone Building Sealant or DOWSIL™ 791 Silicone Weatherproofing Sealant to form a long-lasting, uniform weatherseal and a strong, flexible alternative to wet sealants.

In restoration projects, DOWSIL™ 123 Silicone Seal is applied over failed sealants, spanning the joint and virtually eliminating tedious caulk and sealant removal. Installation is easier and faster than other wet sealant options. In new construction, it easily adapts to difficult design and field conditions.



DOWSIL™ 123 Silicone Seal is available in matte and coarse-, fine- and quartzputz-textured surfaces, in widths from 1 to 12 inches, and in rolls up to 100 ft long. Custom textures, widths and thicknesses from 1 to 3 mm are also available.



EIFS restoration system

Studies have shown that using anything but the best ultralow-modulus sealants can cause joint failure in EIFS-clad buildings (left photo), leading to water leaks and interior wall damage. Removing failed sealants is time-consuming and can cause further damage to the cladding. On this building, DOWSIL™ 123 Silicone Seal was used to span the vertical expansion joints. Then a coat of DOWSIL™ ALLGUARD Silicone Elastomeric Coating was applied to the entire building for added protection and a revitalized appearance.

Custom designs

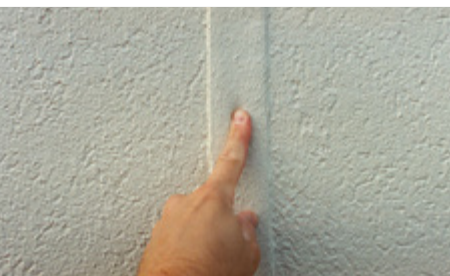
To address specific sealing and aesthetic requirements, Dow offers custom two- and three-dimensional designs of DOWSIL™ 123 Silicone Seal that function as attractive, cost-effective alternatives to vulcanized rubber gaskets or patches and thick sealant installations. Applications include window mitered joints (boots); corner and finish pieces; custom OEM gaskets and molded corners; and custom curtainwall applications, such as splice joints.

A Custom Design Order Form is available from your local Dow representative. Submission of CAD drawings expedites the process.

Architectural recommendations

To help ensure performance under all temperature variations at the time of installation, good architectural practice recommends that joint width should be 1.33 times the total expected thermal joint movement, plus tolerances, and a minimum of 1/4 inch (6.4 mm) for this product. A minimum bond width of 3/8 inch (9.5 mm) on each side of the joint is required.

More information and technical data sheets are available online at dow.com/123 or call Dow Customer Service at +1 800 248 2481.



Fast, efficient weatherseals

- Ultralow modulus: extension/compression capability up to +200/-75 percent of the original joint width without affecting adhesion
- Available in widths up to 12 inches
- Available in textured and matte finishes in standard colors of white, gray, limestone, sandstone, bronze and black; special colors of dusty rose, blue spruce, adobe tan, charcoal and rustic brick. Custom colors also available.
- Custom designed two- and three dimensional shapes and extrusions
- Coatable with DOWSIL™ ALLGUARD Silicone Elastomeric Coating
- Can be used with most common building materials
- SWRI-approved
- 10-year Limited Warranty (see page 16)



Two- and three-dimensional shapes and extrusions of DOWSIL™ 123 Silicone Seal may be custom designed to address specific requirements.



DOWSIL™ 123 Silicone Seal extrusions feature underside grooves to facilitate bending into and around corners and transitions. Custom-designed notches may be ordered for specific application needs.

Reliable air and water protection

- Helps keep energy costs down; the air infiltration rates of DEFENDAIR™ 200C Air and Weather Barrier Coating beat current industry standards
- Remains unaffected by UV exposure, making it an excellent choice for rainscreen applications where the barrier will be exposed to UV radiation
- Helps to prevent water infiltration but has the ability to “breathe”
- One-coat spray application or can be roller-applied; offers primerless adhesion to most construction substrates
- Water-based, low-VOC formulation is an excellent choice for green construction
- Can be applied at temperatures as low as 20°F (-6°C)

DEFENDAIR™ 200C Air and Weather Barrier Coating

Designed to help prevent air and water infiltration while still having the ability to “breathe” and allow water vapor to escape from inside the substrate, DEFENDAIR™ 200C Air and Weather Barrier Coating is a 100-percent silicone liquid-applied air and weather barrier that exceeds industry standards. The vapor-permeable coating is designed to protect against uncontrolled air infiltration and water penetration.

This one-part, water-based silicone elastomer can be brush-, roller- or spray-applied and dries to form a flexible membrane that is impervious to water. The coating offers long-term protection from the elements while allowing for normal movement imposed by seasonal thermal contraction and expansion. The coating maintains its air and water protection properties, even when exposed to sunlight, rain, snow or temperature extremes.

Architectural recommendations

Get more design freedom and protection when you use our fully compatible DOWSIL™ Silicone Air Barrier System – which includes DEFENDAIR™ 200C Air and Weather Barrier Coating. The high-performance silicone technologies that complete the system are designed to help protect the entire building envelope in both new construction and restoration projects.

For more information or to obtain the technical data sheet or application guide, visit dow.com/200C or call Dow at +1 800 248 2481.



Durable protection for penetrations, complex transitions

- Compatible with the DOWSIL™ Silicone Air Barrier System and other weather barrier types, including self-adhering and liquid-applied membranes
- Long tooling time to facilitate workflow when prepping a whole window opening
- High durometer for abrasion resistance
- No primer required over cut-edge gypsum board
- Durable, flexible silicone chemistry; long-term UV resistance
- Simple two-step application process at temperatures down to -20°F (-28°C)

DOWSIL™ 778 Silicone Liquid Flashing

Offering durable weatherproofing of building penetrations and complex transitions, DOWSIL™ 778 Silicone Liquid Flashing is a one-part liquid silicone flashing that can be applied in a simple two-step process at temperatures as low as -20°F (-28°C). Available in charcoal gray and light green, the liquid flashing can be trowel-applied at window and door openings and other through-cavity penetrations to protect against the elements.

Architectural recommendations

Because DOWSIL™ 778 Silicone Liquid Flashing is a fluid-applied flashing, it is easier to use than nonfluid alternatives when sealing difficult details – getting into tight spaces or complicated transitions. When you don't want to leave the durability of the seal to chance, look to DOWSIL™ 778 Silicone Liquid Flashing to protect through-wall details.

For more information or to obtain the technical data sheet or application guide, visit dow.com/778 or call Dow at +1 800 248 2481.



DOWSIL™ Contractors Concrete Sealant and DOWSIL™ Contractors Weatherproofing Sealant

Products designed to address the specific performance requirements of small- to mid-size commercial building projects.

Don't compromise. Legendary silicone sealant performance is now available at a urethane-competitive price.

DOWSIL™ Contractors Concrete Sealant and DOWSIL™ Contractors Weatherproofing Sealant are designed to offer you higher-performing, economical silicone alternatives to urethane sealants.

- If you need high movement and primerless adhesion to concrete or masonry, including brick, choose **DOWSIL™ Contractors Concrete Sealant (CCS)**. This product is validated by SWRI at ± 50 percent joint movement with a Shore A durometer of 15 points.
- If you need good movement and primerless adhesion to EIFS or nonporous substrates, including glass and aluminum, choose **DOWSIL™ Contractors Weatherproofing Sealant**. This product is validated by SWRI at ± 25 percent joint movement with a Shore A durometer of 30 points.

For more information about economical, high-performance silicone sealants, visit dow.com/CWS or dow.com/CCS or call Dow at +1 800 248 2481.



"Many buildings are still spec'd with urethane, and we will often ask for a change to CCS. Like anybody, we're in business to stay in business. With DOWSIL™ Contractors Concrete Sealant, it's a no-brainer. Who wouldn't want to use a product that does the job better and costs less?"

Laurence Cote,
Owner, Bradcan Caulking & Restoration, Inc.
Edmonton, Alberta, Canada



Louisville International Airport, Louisville, Kentucky. Mark Postma, project engineer with Carl Walker, Inc., in Kalamazoo, Michigan, specified DOWSIL™ NS Parking Structure Sealant to seal expansion joints on this 4,304-space parking deck because of “its resistance to the deteriorating effects of ultraviolet light, excellent adhesion, and low-modulus and high-elongation capabilities.”

An excellent choice for longer service

- Virtually unaffected by sunlight, rain, snow, ozone and temperature extremes
- Excellent movement capability (+100/-50 percent) without splitting, cracking or losing adhesion
- Remain elastic for years, keeping water and debris from entering the joints

DOWSIL™ Brand Parking Structure Sealants

Silicone parking structure sealants from Dow are an investment in lower life-cycle costs, less downtime, greater maintenance savings and a better parking structure.

Because they are 100 percent silicone, DOWSIL™ Brand Parking Structure Sealants resist the environmental stresses that can lead to the early failure of ordinary urethane sealants. Extreme temperatures soften or harden urethane sealants beyond recovery. They are also very susceptible to UV degradation, so they grow brittle and crack over time.

Silicone sealants perform years longer and maintain their flexibility, which keeps water and debris from entering the joints. They can also withstand the vertical deflections of traffic and the expansion-contraction of concrete slabs. Three DOWSIL™ Brand Parking Structure Sealants are available for new construction and restoration applications:

- **DOWSIL™ FC Parking Structure Sealant** – A fast-cure, two-part, self-leveling, ultralow-modulus sealant for joints that undergo severe movement due to traffic loads. It is suitable for use in expansion joints from 1-3 inches

wide and adheres to concrete, steel and polymeric nosing substrates. The product works well with Silspec 950 PDX non-coal tar polymer nosing in expansion joints. DOWSIL™ 1200 OS Primer is required for bonding to concrete and Silspec PDX nosing.

- **DOWSIL™ SL Parking Structure Sealant** – A self-leveling, one-part, cold-applied, ultralow-modulus sealant formulated for concrete, asphalt and concrete-to-asphalt joints that experience high movement. It is an excellent choice for horizontal and moderately sloped joints, minor construction joints, crack control joints and random crack chasing. Because it is self-leveling and requires no primer, installation is fast and easy.
- **DOWSIL™ NS Parking Structure Sealant** – A one-part, non-sag formulation that cures to a durable, flexible (low-modulus) silicone seal in horizontal concrete joints and on vertical surfaces, such as curbs and traffic barriers. It is an excellent choice for restoration projects and offers excellent unprimed adhesion on concrete.

For more information and technical data sheets, visit dow.com/FCParking, dow.com/SLParking or dow.com/NSParking, or call Dow Customer Service at +1 800 248 2481.

Primers, colors and tools

Primers

Primers are not typically required to promote the adhesion of DOWSIL™ Brand Silicone Construction Materials to most common building substrates. However, Dow does offer three primers that can be specified per architect recommendations and/or job site verification:

DOWSIL™ 1200 OS Primer

DOWSIL™ Primer-C Construction Sealant Primer

DOWSIL™ Construction Primer P

For more information refer to Dow's *Americas Technical Manual* (Form No. 62-1112). Find it on our website at dow.com/buildingscience or call Dow at +1 800 248 2481.

Standard and custom colors

Silicone construction materials from Dow are available in almost any color imaginable. DOWSIL™ ALLGUARD Silicone Elastomeric Coating is available in 55 standard colors that are field pigmented at distributors for rapid delivery. Standard silicone colors range from black and white to natural stone, limestone and contemporary hues. Custom colors are also available for DOWSIL™ Brand Silicone Sealants, DOWSIL™ ALLGUARD Silicone Elastomeric Coating and DOWSIL™ 123 Silicone Seal.

With our innovative Color It Right sealant color program, select sausage-packaged sealants are available in catalog and custom colors quickly and conveniently. Architects can design with confidence with:

- An expanded color palette for nearly limitless design options.
- Color availability in specifiable, high-performance sealants.
- Consistent color from start to finish. You can be confident that small quantities ordered for finishing touches

at the end of a job will match the initial quantities ordered without worry of mixing issues or batch-to-batch variations.

- Projects that stay on schedule and within budget – typically, catalog colors are ready to ship in three business days, custom colors in nine business days. With no mixing needed, contractors save time and labor costs.

With standard, catalog and custom colors from Dow, you receive an excellent match for your substrate, plus the remarkable performance of very high-quality silicone construction products. For more information, contact your local Dow representative or visit dow.com/coloritright or call Dow at +1 800 248 2481.



Sealant estimator

To calculate the linear feet per gallon of DOWSIL™ Brand Silicone Sealant required for various joint sizes, use the product estimator at dow.com/constructioncalculators.

Dow Building Science website

On the Dow Building Science website (dow.com/buildingscience), you can access downloadable information on DOWSIL™ Brand Construction Materials, as well as a variety of support services. You will find technical data sheets, brochures, guides, and technical manuals and articles. The Application Troubleshooter guides you through practical recommendations and problem-solving. You also can calculate the sealant required on the sealant estimator or search for the right product for your application on the Product Finder. For all of this and more, go to dow.com/buildingscience.

Exceptional warranties



Dow Warranty Programs

Combine the commitment of a world leader in silicone technology with the long-life performance of silicone construction materials, and it is not surprising that DOWSIL™ Brand Product Warranties are much longer than those typically offered by non-silicone competitors. The following are brief descriptions of our limited warranties. For more information, contact your local Dow representative.

Structural Adhesion Limited Warranty

- 20-year Limited Warranty
- Available only for DOWSIL™ 795 Silicone Building Sealant, DOWSIL™ 983 Structural Glazing Sealant and DOWSIL™ 995 Silicone Structural Sealant

- Project-specific adhesion and compatibility tests required on all substrates that will contact the structural silicone
- Review of project's structural glazing drawing details is required

Weatherseal Limited Warranty

- 20-year Limited Warranty
- Available for DOWSIL™ Brand Silicone Construction Materials used in non-structural applications (e.g., perimeter seals, weatherseals, splices, internal seals)
- Field or lab adhesion testing may be required for surfaces not listed in the *Dow's Americas Technical Manual* (Form No. 62-1112)

Non-Staining Limited Warranty

- Letter verifying test results provided as addendum to 20-year Weatherseal Limited Warranty
- For sealants used on porous surfaces, such as marble, granite, limestone, concrete and brick, where staining may be a concern
- Project-specific substrate testing required (see "Stain Testing," page 17)

Other limited warranties

Project-specific limited warranties are also available for:

- DOWSIL™ 123 Silicone Seal
- DOWSIL™ ALLGUARD Silicone Elastomeric Coating (original application + recoat option)
- DOWSIL™ Brand Parking Structure Sealants

When Dow Limited Warranties require prior print review and testing (which takes at least 30 days), advance planning is required to help ensure the timely issuance of a warranty.

Limited warranty	Prior testing required	Test time required	Print review required
Structural Adhesion	Yes	4 weeks	Yes
Weatherseal	No*	4 weeks*	No
Non-Staining	Yes	5 weeks	No
DOWSIL™ ALLGUARD Silicone Elastomeric Coating	No**	Field testing	No
DOWSIL™ 123 Silicone Seal	No	Field testing	No
DOWSIL™ Brand Parking Structure Sealants	No	Field testing	No

*Surfaces not found in Dow's *Americas Technical Manual* may require prior testing to issue a Weatherseal Limited Warranty.

**Field adhesion tests required if primer is not used.

Support that promotes success

Innovative thinking

With decades of material innovations in dozens of industries worldwide, Dow is a wellspring of innovative thinking. When that thinking is focused on your needs, groundbreaking outcomes result – such as the industry’s first four-sided silicone structural glazing application, impact-resistant glazing, non-staining sealant technology for aesthetically sensitive substrates and custom, three-dimensional silicone rubber seals.

But our support doesn’t end with innovative materials. We also offer innovative services and integrated product/service options tailored to your specific needs.

Exceptional construction project support

Dow Building Science brings you a level of knowledge and technical resources not easy to find in the industry, including state-of-the-art Construction Testing Laboratories. The capabilities we can bring to the table on your behalf include:

Specialized testing of construction products: From qualification and compatibility testing to custom sealant testing, we can meet your construction product testing needs.

Adhesion, compatibility and stain testing: We can perform the standard testing that is required for issuance of structural glazing and stain-free warranties. These tests are based on Dow-modified ASTM standards and are directly related to projects utilizing DOWSIL™ Brand Silicone Construction Materials. For example:

- **Compatibility testing:** Incompatible materials can lead to discoloration and/or possible loss of adhesion. Dow will test and provide information on the compatibility of our products with accessory materials (e.g., gaskets, spacers, setting blocks).
- **Adhesion testing:** Dow will evaluate the adhesion of our products at your job site or on representative materials (e.g., glass, metal, masonry, spacers). Test results, product recommendations, surface preparation and primer can be confirmed in writing, if needed.
- **Stain testing:** Contact your Dow representative and/or authorized distributor for details on submitting samples and other testing requirements. DOWSIL™ 756 SM Building Sealant is designed specifically for weathersealing aesthetically sensitive substrates. Stain testing is not required.

Analytical services: Dow’s Analytical Department can provide you with a wide range of material characterization knowledge. We can help you identify and quantify material components and contaminants and troubleshoot a wide variety of material performance and application problems.

Blueprint review: We can review your blueprints and make recommendations for material and design enhancements, structural glazing, weatherproofing and performance and substrate compatibility.

Building specification review and revision: We can review your building specifications for materials and design criteria with respect to building sealants.

Construction mockup program: Visualize your project with our on-site technical consultation services for official building mockup testing.

Custom designs: DOWSIL™ 123 Silicone Seal can be custom-designed to your project specifications (see page 11). For design and ordering assistance, contact your Dow Technical Service representative.

Sealant application training: Our team of specialists will train your installers on appropriate surface preparation and installation of DOWSIL™ Brand Silicone Construction Materials.

Important testing notes

1. Test results relate only to the products and construction project under test.
2. Samples submitted for evaluation should be identified by project name, location, manufacturer and substrate description.
3. Testing requires about 30 calendar days.
4. Contact your Dow representative for information about the sample submittal procedure. (For the name and location of your local representative, visit **dow.com/buildingscience**.)
5. Dow architectural specifications can be found at **dow.com/constructionsubmittals**.



As the world's largest construction silicone provider, Dow is pleased to celebrate more than 50 years of 4-sided silicone structural glazing technology.

4-Sided Silicone Structural Glazing

Put Dow on your design team

Dow is more than a silicone supplier. We're a high-performance building materials leader. In addition to silicone, we can also supply the application technology, services and tailored support you need to:

- Integrate sustainable, high performance building options throughout your project
- Address unique structural glazing and weatherproofing challenges
- Improve your in-shop productivity; reduce material waste
- Extend building life
- Reduce building life-cycle costs
- Achieve design freedom

You're the building design and construction experts. We're the silicone technology specialists. When the next big design challenge comes along, give us a call. Let's work together to take advantage of our innovative thinking and silicone materials knowledge and experience.

Make Dow Building Science part of your design team. Together, we can achieve things never before imagined.

Structural silicone glazing services

Structural silicone glazing is today's most innovative form of curtainwall construction. Glass, ceramic, metal, stone and composite panels are adhered to building frames using structural silicone adhesive/sealants. The adhesive/sealants not only support the panels; they also transmit windloads to the structure and seal the building from the elements.

Dow Technical Service specialists offer project support to architects, consultants, designers, structural engineers, curtainwall manufacturers and erectors, and glass and component suppliers throughout the planning and construction process.

Because pre-job testing, proper design, material selection and close control of work quality contribute to the reliability of silicone structural glazing systems, Dow reviews all structural glazing details before approving specific projects. These details include the project's windload specifications and project drawings to help ensure proper joint design in relation to the types and sizes of materials specified.



COOL – Dow COstruction OnLine



A distinctive Web-based project management system from Dow, COOL is fast, free and easy to use. COOL lets you:

- Create your own project and job information database
- Quickly and easily request print reviews, sample tests and warranties from Dow
- Upload project photos, drawings, logbooks and reports
- Download electronic copies of your test results, recommendations and warranties
- Tap into the collective knowledge and experience of Dow's global network of silicone building material specialists

COOL tracks the progress of your service requests, offering instant status updates. It lets you see the big picture so you know, at a glance, what you have, what you need and when you'll get it. COOL will even share job details and print review and test results with your Dow contact, automatically. Learn more at dow.com/cool.

Structural silicone glazing – joint design

Silicone structural glazing utilizes a high-performance silicone sealant to attach glass, metal or other panel materials, referred to as “infill material” from this point forward. Structural silicone attaches the infill material to a metal frame in lieu of gaskets and mechanical attachments. The windload stresses are transferred through the structural silicone sealant to the structure of the building. The structural silicone sealant must maintain its adhesive and cohesive properties to support the infill material under windload.

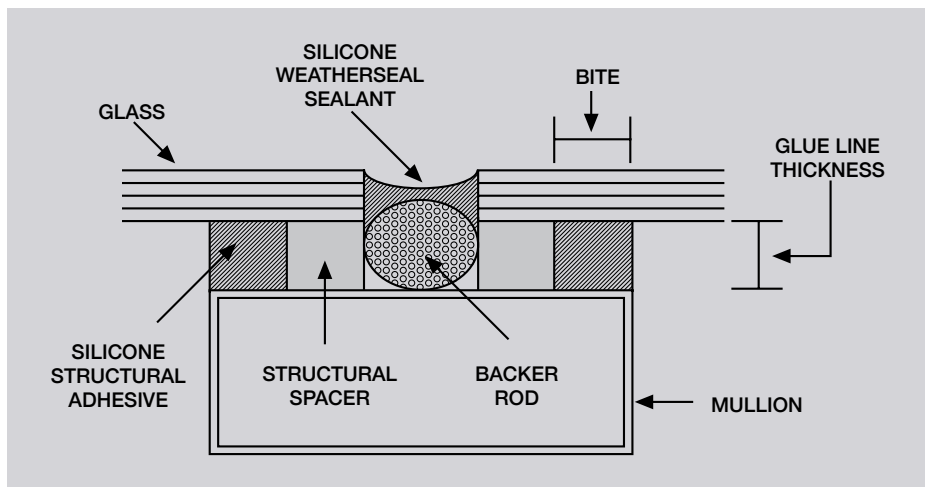
Preliminary guidelines

1. Glue line thickness must not be less than 1/4 inch (6.4 mm).
2. The structural bite must not be less than the glue thickness.
3. Structural bite =

$$\frac{0.5 \times \text{smallest leg of largest lite (ft)} \times \text{windload (lb/ft}^2\text{)}}{\text{Sealant design strength } 20 \text{ (lb/in}^2\text{)} \times 12 \text{ (in/ft)}}$$

4. Always round up when using the above equation. For example, a 4 x 8 ft. lite under 40 lb per ft² windload requires 0.333 inch (8.47 mm) of silicone. You would round this up to 3/8 (0.375) inch (9 mm). Never round down.
5. The structural sealant joint must be able to be filled using standard caulking practices.
6. The joint must not move during cure.

For additional information about structural silicone glazing, call Dow Customer Service at +1 800 248 2481 and request the *Dow Americas Technical Manual* (Form No. 62-1112) or visit dow.com/buildingscience. For more detailed project review and quality assurance information, look for additional technical manuals at dow.com/buildingscience.



For more information

Learn more about the full range of Dow Building Science offerings, including products, service and support, at 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.



Note:

Any review, recommendation or statement made on behalf of Dow relating to any engineering design, architectural drawing, product formulation, end-use specification or similar document is limited to the knowledge of the product properties as determined by laboratory testing of material produced by Dow. Any comments or suggestions relating to any subject other than such product properties are offered only to call the attention of the engineer, architect, formulator, end-user or other person to considerations that may be relevant in an independent evaluation and determination of the appropriateness of such design, drawing, specification, document or formula.



Dow Building Science website:
dow.com/buildingscience



Contact Dow Building & Infrastructure:
dow.com/customersupport



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Dow has not performed architectural, engineering or other professional services in connection with any of the projects referenced herein, and Dow assumes no responsibility for any design, specifications, windload requirements, materials, samples, design elements, or testing of any design components, including the adequacy or completeness of the same, supplied or used by any party. Dow will only warrant products as set forth in a separate executed Dow warranty.

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT [WWW.DOW.COM](https://www.dow.com), OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

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