



High Performance Building

Dow Performance Silicones

# DOWSIL™ Silicone Construction Sealants and Weathersealing Products

**DOWSIL™**



When you renovate, invest for long-term performance and economic gain.



## When you renovate, protect your building with proven weathersealing solutions.

- Increase the value of your real estate assets
- Lower your long-term maintenance costs
- Fine-tune the energy efficiency of your building
- Receive warranted performance from trusted experts

**As a building owner or property manager** you know the importance of maximizing the return on investment (ROI) in your real estate assets. One key is to extend the useful life of your building. DOWSIL™ silicone construction sealants and weathersealing products are proven solutions to help you do that and get the most from your renovation investment.

### Small investment. Big returns.

It is important for building owners, managers and designers to be involved in product selection when cost savings and performance are at stake for your property.

A sealant failure in your building's exterior can lead to costly and time-consuming repairs. DOWSIL™ silicone construction sealants significantly outperform competitive urethane sealants – **lasting up to three times longer** – dramatically lowering maintenance costs and lifetime ownership costs and helping keep your ROI on track.

### Break the repeat repair cycle.

Anyone who has had to reseal glazing or repair joint seals in masonry or any exterior surface knows the process is labor-intensive and costly. By specifying Dow products, you will experience lower life-cycle cost and less frequent repairs. In addition to lower costs, fewer repairs means less repair material will be consumed over the lifetime of the structure, helping to improve the sustainability profile of the buildings you own or manage.

Figure 1 details an example of nearly 2X life-cycle cost savings resulting from recaulking an eight story building with DOWSIL™ silicone sealants compared to urethane sealants.

Over the silicone's lifespan, an identical building sealed with urethane would require two additional recaulking applications. The life-cycle cost savings using DOWSIL™ silicone sealants is more than \$125,000.

**Figure 1. Joint Renovation Costs, Sealant Life-Cycle Cost Comparison<sup>1</sup>**

Sealant <sup>2</sup>	Initial Recaulk Application	2nd Recaulk Application	3rd Recaulk Application	Cumulative Savings
Urethane	\$64,400	\$64,400	\$64,400	
Silicone	\$67,600	–	–	\$125,600

<sup>1</sup> Application via manlift. Not adjusted for inflation. Non-union labor; SE region; 8,000 lineal feet of recaulked joints.

<sup>2</sup> Typical recaulk costs are \$8.45/lineal foot for silicone and \$8.05/lineal foot for urethane, which includes material, labor and equipment.



Fine-tune your building's performance.



DOWSIL™ silicone construction sealants and weathersealing products help protect the integrity of your building envelope. An effectively sealed building envelope is beneficial in several ways:

- **Weather resistance** – Unlike urethane or other organic products, inorganic silicone sealants are virtually unaffected by sunlight, ozone, rain, snow or temperature extremes, providing long-term integrity for your building's exterior.
- **Energy efficiency** – Your building's HVAC systems will more efficiently maintain indoor air temperature, humidity and cleanliness levels to help lower operating costs. And reduced energy consumption makes a significant contribution to sustainability over the life of your buildings.
- **Occupant comfort** – Silicone sealants outperform organic sealants and therefore maintain stable temperatures, humidity levels and a clean inside environment to help keep occupants comfortable for years to come.

### Thermal modeling comparisons show energy efficiency.

The glazing system chosen for a fenestration system has a significant impact on its energy performance. Thermal modeling comparisons show systems using silicone structural glazing are more energy-efficient than systems using mechanically fixed, gasket-based glazing.

Over time, gaskets in mechanically fixed glazing systems shrink and fail, allowing moisture ingress – leading to corrosion problems – and increasing air infiltration, which consequently increases energy consumption. Buildings with failed mechanical systems can easily be renovated using silicone wet sealants applied directly over existing failed gaskets. Use of durable silicone sealants, which retain performance properties even when exposed to UV, water, wind and other aging factors, can result in measurable improvements in energy efficiency.

"The exterior caulking project went extremely well. The inspection reports from our consultant indicated that the adhesion and caulk are holding up well. I greatly appreciated the help we received from Dow."

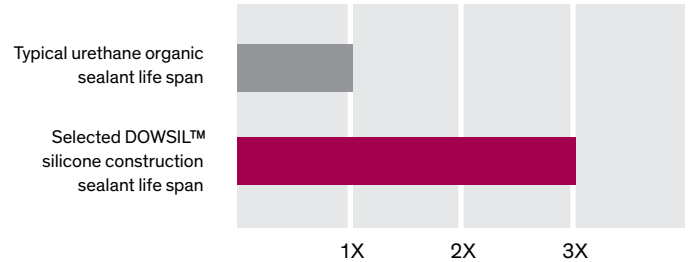
-Property Manager

Choose the warranted renovation option.



The performance of DOWSIL™ silicone glazing and weathersealing products is supported by a warranty program that is a model for the industry. The Dow Warranty Program reflects the confidence you can have in our products' quality and performance. That confidence is your assurance of building envelope protection that exceeds your expectations.

### Sealant life span comparison.



For architects and specifiers.



When you specify DOWSIL™ products for renovation projects, you are making an excellent choice for both you and your client. Here is why:

- **Design without compromise** – The superiority of Dow products compared to organic alternatives gives you the freedom to pursue innovative designs that serve both the structural performance and aesthetic needs of your projects.
- **Technical support** – The extensive network of Dow sales people and distributors provides field support for product selection, application testing, and on-the-job logistics.
- **Sustainability** – At Dow, we support the principle of sustainability through our strategies, processes, products and solutions. Specifically, enhancing energy efficiency through reduced air infiltration and extending the useful life of a building are significant contributions to sustainable design and construction practices.
- **Warranted performance** – Not only do we claim that silicone solutions from Dow outperform urethane organic sealants, we back the claim with our industry-leading warranty. You can be confident in your choice.

"We felt we had to go with silicone over polyurethane. We wanted to have a good performing sealant. When you have very complex facades and so much is devoted to the fabrication and installation, you can't afford to have sealant failures."

-Project Manager



You can rely on DOWSIL™ silicone construction sealants and weathersealing products.



Courtesy of Coastal Construction Products, Inc

## Proven silicone weathersealing helps the Tallahassee police stay dry.

The headquarters building for the Tallahassee, Florida, Police Department features a striking three-story glass block wall. Striking though it is, letting light in while keeping water out has been a problem for the city.

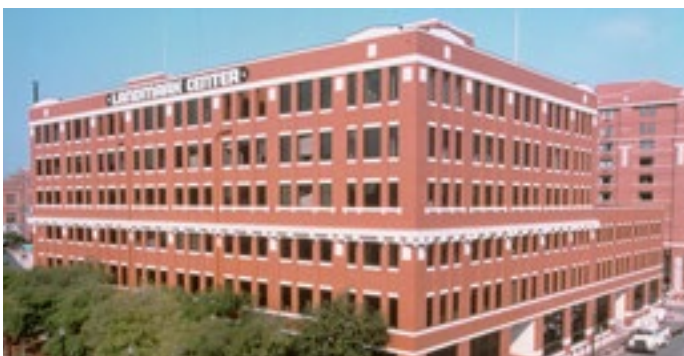
Over the years the site manager tried a variety of approaches without complete success. Working as a team, weathersealing experts from the Tallahassee office of Dow distributor Coastal Construction Products, Inc., and Tallahassee-based Rippee Construction designed an effective solution. Their recommendation included the application of DOWSIL™ 123 Silicone Seal to all mortar joints between the glass blocks, and the use of DOWSIL™ 791 Silicone Weatherproofing Sealant for all other joints in the glass block wall.

### A solution that works.

“The building was completed in the late 1980s, and water intrusion through and around the mortar joints and building control joints has been an ongoing problem,” said Mike Mulrennan, facilities manager for the police department. “Over the past several years we have had outstanding success with the Dow products supplied by Coastal Construction Products. The results have exceeded our expectations. And we know the products are backed by a warranty that adds peace of mind.”

#### Fast Facts

- Project:** Tallahassee Police Department headquarters building  
Tallahassee, Florida  
Resealing of three-story glass block wall  
and repair of control joints
- Products:** DOWSIL™ 123 Silicone Seal  
DOWSIL™ 791 Silicone Weatherproofing Sealant



#### Fast Facts

- Project:** Landmark Center Dallas, Texas  
Resealing of windows and mortar, sealing of joints in coping cap, and custom color coating
- Products:** DOWSIL™ 795 Silicone Building Sealant  
DOWSIL™ 123 Silicone Seal  
DOWSIL™ AllGuard Silicone Elastomeric Coating

## Dallas landmark gets leak protection and facelift.

Built in 1913, the six-story brick and concrete Landmark Center was renovated in 1980, but by 1996 it “leaked profusely,” according to Joseph Solinski, president of Stone & Glazing Consulting, Inc., of Dallas, Texas. Solinski isolated a number of problems, including improper window flashing, failed urethane perimeter sealing and crumbling brick mortar. He recommended a silicone solution.

April Building Services of Dallas resealed the windows and small mortar cracks with DOWSIL™ 795 Silicone Building Sealant and used DOWSIL™ 123 Silicone Seal, a preformed extrusion with remarkable movement capabilities, to seal the metal-to-metal joints in the new aluminum coping cap around the roof.

The final touch was two coats of DOWSIL™ AllGuard Silicone Elastomeric Coating in a custom color that matched the building’s previous paint. The silicone coating was just what the building needed – an additional layer of durable, waterproof leak protection.

“It looks great, and we’ve been very pleased,” reports property manager Yvette Horvath, RPA.



## Specify Sustainability

Building owners, architects, engineers and contractors are enhancing the sustainability profile of countless renovation and restoration projects by specifying DOWSIL™ silicone weathersealing products. That's because Dow silicones do more than help earn points toward LEED® certification. Silicone materials and expertise from Dow help construction professionals create more sustainable buildings.

Here is how:

- Increasing energy performance through structural glazing and window sealing
- Extending building life
- Reducing waste and enhancing recycling
- Specifying environmentally responsible products

\* U.S. Green Building Council's Leadership in Energy and Environmental Design program

## Contact Us

Dow is collaborating with industry professionals around the world to develop solutions to improve the energy efficiency of buildings for a more comfortable environment. Learn more about Dow's full range of High Performance Building Solutions by visiting us online at [consumer.dow.com/construction](https://consumer.dow.com/construction).

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

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Dow's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

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