



Consumer Solutions

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## **DOWSIL™ InstantGlaze Window Assembly Sealant**

Revolutionary, reactive hot-melt silicone lets you make windows faster, better and more economically

Productivity Solutions

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## Introducing

### DOWSIL™ InstantGlaze Window Assembly Sealant

DOWSIL™ InstantGlaze Window Assembly Sealant is a patented, neutral-cure, reactive hot-melt silicone that is ideal for automated backbedding applications. When used with standard hot-melt dispensing equipment and an automated X-Y glazing table, DOWSIL™ InstantGlaze becomes part of a total productivity solution... a solution that **enables you to produce windows and doors faster, better and more economically than other technologies on the market today.**

#### The DOWSIL™ InstantGlaze Advantage

- Instant green strength for immediate hold
  - Windows move seamlessly from one processing step to the next
  - Improves window quality, increases productivity, reduces costs
- No “hold time” requirement
  - You can ship your windows as fast as you can make them
  - Increases productivity, reduces space requirements
  - Saves you time and money
- Long pot life and long open time
  - Material stability
  - Gives you processing flexibility and robust manufacturing options
  - Reduces sealant failure concerns
- Proven neutral-cure 100% silicone chemistry
  - Compatible with most common fenestration materials and insulating glass sealants
  - Cures to a flexible, weather-resistant elastomer with outstanding durability and UV resistance
  - Proven ability to withstand weathering
- Aggressive adhesion to PVC, aluminum, painted and treated wood, high-performance paints, fiberglass and glass
  - Long-lasting adhesion
  - A seamless seal
- Crystal clear or select colors for improved window aesthetics
- Worker friendly
  - Non-hazardous formulation
  - Very low VOC (exempt from California VOC regulations)
  - Very low odor

#### Typical Performance Properties

Property	Performance
Open Time (to drop glass)	15 minutes
Pot Life	24 hours at 250°F (121°C)
Application Temperature	250°F (121°C)
Viscosity at Application Temperature	2,100 poise
Green Strength (lap shear test)	18 psi at 15 minutes; 28 psi at 60 minutes
Ultimate Tensile Strength (7-day cure)	350 psi
Elongation at Break (7-day cure)	1,000%
Weathering Resistance	Excellent
UV Exposure	No color change after 1,000 hours
High Temperature Exposure	No change to physical properties at 200°F (93°C)
High Temperature Water Immersion	No change to physical properties at 160°F (71°C)
Low Temperature Exposure	No change to physical properties at 25°F (-32°C)
Elastic Recovery	100% (before and after cycling)
Adhesion (at full cure) at 100% cohesive failure	
PVC	25 pli
Glass	50 pli
Treated Wood	20 pli
Mill-Finished Aluminum	45 pli
Fiberglass	45 pli
Kynar	50 pli
Application Rate	15 inches/second

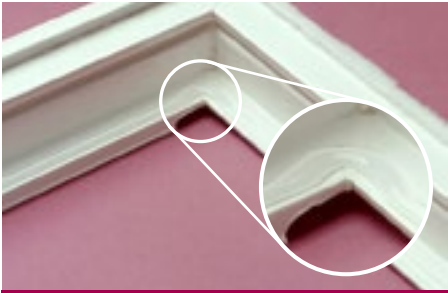
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DOWSIL™ InstantGlaze offers the perfect combination of long open time and instant green strength. It gives you 15 minutes to set the glass. But once the glass is placed, hold is immediate.

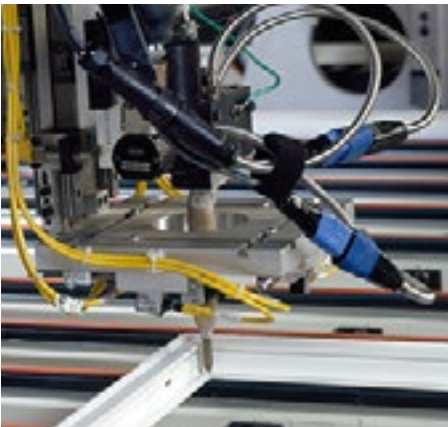
**DOWSIL™**

silicones by 



Robotically applied DOWSIL™ InstantGlaze flows smoothly into corners. Unlike glazing tape, there are no wrinkles, joints or gaps to leak.

A computer controlled pump system precisely regulates sealant temperature and pressure. It also adjusts sealant output to changing line speeds.



The robotic dispensing head drops into the sash opening, finds its own start point, and automatically travels around the frame, applying a continuous, uniform bead of sealant.



### The Automated Advantage

With readily available automated glazing equipment and DOWSIL™ InstantGlaze Window Assembly Sealant, **you can produce two to four times as many units as tape glazing in the same amount of time with less backbedding operation labor.** Automated glazing...

- Creates a perfect seal every time and reduces your window-to-window variability, which can increase customer satisfaction
- Minimizes sealant waste and cleanup
- Can substantially reduce your labor costs

### Manual Tape Glazing vs. DOWSIL™ InstantGlaze\*

	Manual Tape Glazing	DOWSIL™ InstantGlaze
<b>Productivity</b>		
Labor Hours	48,000 hours	29,000 hours
Number of Operators	25	15
Number of Window Units Produced per Hour	750	1,000
Annual Capacity	1,224M window units	1,632M window units
Annual Capacity Improvement	25	+ 408M units/year
<b>Cost Savings</b>		
Tape/Sealant Cost per Year	\$600M	\$649M
Labor Cost per Year	\$720M	\$432M
Cost of Product Waste per Year	\$30M (5%)	\$16.2M (2.5%)
Cost of Window Rejects Scrap per Year	\$450M (0.5%)	Negligible
Total Annual Glazing Operations Costs	\$1,800M	\$1,097.2M
Annual Glazing Operation Cost Savings		\$702.8M
Glazing Investment		\$500M
Estimated Payback		0.71 years

\*Results will vary. This example is based on a window manufacturer running 5 tape glazing lines and working one 8-hour shift per day, 5 days per week.

### The Equipment Advantage

We want to ensure that your transition to automated glazing is a successful one. So, in addition to supplying you with our new, reactive hot-melt silicone, Dow will also provide you with tried and tested equipment solutions.

Pre-engineered pump and X-Y glazing table combinations have been adapted for use with DOWSIL™ InstantGlaze reactive hot-melt sealant and are available through our preferred equipment suppliers.

“ In the process of evaluating DOWSIL™ InstantGlaze Window Assembly Sealant here at Eagle Window & Door, we found that the material exhibits the characteristics of several glazing material systems rolled into one. It provides the instant green strength of a mastic butyl, the outstanding weathering/ UV durability of a silicone, plus the structural integrity required to meet the rigid requirements of hurricane regions.

When used with the recommended application equipment, the material flows extremely well and consistently due to the temperature and viscosity of the material at the time of application. The material's long open time allows for glass positioning adjustments to be made before the material fully cures. ”

- John Hannan  
Senior Manufacturing Engineer,  
Eagle Window & Door, Inc.

## More Than Silicone

At Dow, our aim is not simply to sell you silicone, but to provide you with comprehensive solutions that will help you increase production, drive down costs and be more competitive in the fenestration marketplace. In addition to our DOWSIL™ InstantGlaze productivity solution, we also offer process analysis and industry benchmarking services. Put your operation on the road to greater productivity. Ask your Dow representative for more information, today.

## How To Contact Us

For additional information, Contact Dow at 1 800 248 2481 or at **[consumer.dow.com/construction](http://consumer.dow.com/construction)**.

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