

## DOW CORNING® 895 Structural Glazing Sealant

### FEATURES

- Meets the newly developed European standards for structural glazing application, as developed by EOTA
- Excellent adhesion to a wide range of substrates including coated, enamelled and reflective glasses, anodised and polyester coated aluminium profiles and stainless steel profiles
- Odorless and non-corrosive cure system
- One-component product
- Resistant to ozone and temperature extremes

### BENEFITS

- The cured product exhibits excellent weathering characteristics, and a high resistance to ultra-violet radiation, heat and humidity
- High ultimate tensile strength makes it ideally suited for structural bonding applications
- Excellent mechanical properties

### One-part silicone rubber

### APPLICATIONS

- One component silicone sealant for structural glazing.

### TYPICAL PROPERTIES

Specification writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales representative prior to writing specifications on this product.

Test method*	Property	Unit	Value
<b>As supplied</b>			
	Specific gravity	g/ml	1.43
	Slump or flow	mm	0
	Tack-free time (25°C/77°F, 50% R.H.)	minutes	40 to 60
	Cure schedule (25°C/77°F, 50% R.H.)	mm	
	- after 24 hours		2.2
	- after 72 hours		3.5
(See also Optimal Glazing Conditions)			
<b>As cured - after 7 days at 25°C (77°F) and 50% RH</b>			
ASTM D2240	Durometer hardness, Shore A	Points	38
ASTM D0412	Ultimate elongation	%	600
ASTM D0412	Tensile strength, at 100% elongation	MPa	0.7
ASTM D0412	Tensile strength, at ultimate elongation	MPa	2.85
ASTM D624	Tear strength	kN/m	19
<b>H-Piece Testing</b>			
ISO 8339	Ultimate elongation	%	260
ISO 8339	Tensile strength	MPa	1.06
ISO 8339	Young modulus	MPa	1.0
	Sealant dynamic design load	Pa	140,000
	Sealant static design load	Pa	7,000
	Service temperature range	°C	-50 to +150
		°F	-58 to 302
	Working time	minutes	15

\* ASTM: American Society for Testing and Materials.  
ISO: International Standardisation Organisation.

## DESCRIPTION

DOW CORNING 895 is a one-part, neutral curing silicone sealant designed specifically for the structural bonding of glass, metal, and other building components.

It can also be used to adhere stiffening elements to building panels and for other similar adhesive applications.

Neutral alkoxy cures at room temperature on exposure to water vapour in the air, giving off a small amount of methanol.

## TECHNICAL SPECIFICATIONS AND STANDARDS

DOW CORNING 895 Sealant exhibits a high level of physical properties and adhesive performance which are retained even after aging as detailed by EOTA

(Ref: INV 96/BE.35).

- 2000 hours exposure to ultra-violet radiation in hot water immersion (ISO DIS 11431, UBAtc ATG00/H716).

- 5000 load cycles in tension (ISO 846, UBAtc ATG00/H716).

- Resistance to SO<sub>2</sub> and salt spray (ISO 3231 and ISO 9227NSS, UBAtc ATG00/H716).

- Resistance to cleaning agent (ISO/DIS 10591).

- Resistance to extreme temperature (EN 28-339, UBAtc ATG00/H716).

- 4000 hours exposure to ultra violet radiation under maintained extension at 12.5% (Ref: CSTB GM 90-8).

## INSTALLATION

For structural glazing use, DOW CORNING 895 Sealant should be factory-applied. Factory application helps ensure optimal sealing conditions and performance. Job-site application should only be carried out for remedial work, or when the glazing design does not allow otherwise.

This adhesive meets the newly developed European Standard for structural glazing application the EOTA guidelines for SSGS.

## Joint design

As a general rule, structural sealant joints made with DOW CORNING 895 Sealant should have a width between 6mm and 15mm. However, the exact width is determined by the structural calculations. The width (dimension y) of the structural sealant joint should also be calculated to accommodate thermal and dynamic movements but as a rule should not be less than 6mm and ideally in a 3:1 ratio (width:depth).

## Accessory selection

The appropriate selection of all accessories such as setting blocks and backing materials is of primary importance in avoiding discolouration or adhesion-related problems due to incompatibility. Dow Corning will also assess the suitability of proposed accessory materials as part of the standard testing services. Closed cell polyethylene foam is the recommended backer material for most joints. Silicone-based setting blocks are generally recommended for best compatibility.

Some typical examples of joint designs are shown in Figures 2 and 5.

## Optimal glazing conditions

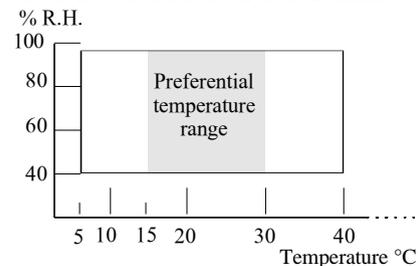
Ideally, all glazing should be done in-factory and within the following conditions of temperature and humidity:

Temperature conditions: 5°C to 40°C (41-104°F)

Humidity conditions: 40% to 95%

Recommended temperatures range: 15°C and 30°C (59-86°F)

**Figure 1: Humidity cure envelope for DOW CORNING 895 Sealant.**



Any combination of the above conditions will ensure a cure schedule

sufficient to allow transportation of the glazed modules within 21 days, depending on joint configuration. Consult Dow Corning for specific advice.

## Preparatory work

Thoroughly clean all joints and glazing pockets, removing all contaminants such as grease, oil, dust, frost or water. All metal, glass, or other surfaces should be cleaned with the recommended solvent, using a lint free cloth. The solvent should not be allowed to evaporate on its own from the surface.

## Priming

Priming is not usually required when using DOW CORNING 895 Sealant. However, it is essential that adhesion be tested prior to use. Specific primer recommendations will be made by Dow Corning Technical Services Department on a project basis. Please contact Dow Corning for further advice.

## Masking and tooling

Areas adjacent to joints may be masked to ensure neat sealant lines. Do not allow masking tape to touch clean surfaces to which the sealant is to adhere. Tooling should be completed in one continuous stroke within 5 minutes after sealant application and before a skin forms. Remove masking tape immediately after tooling and before the sealant has started to form a skin.

## Application method

Install the backing material, setting blocks and spacer tapes as specified. Apply DOW CORNING 895 Sealant in a continuous operation using positive pressure to properly fill and seal the joint. Tool the sealant with slight pressure to spread it against the backing material and the joint surfaces. A tool with a concave profile is recommended to keep the sealant within the joint.

## MAINTENANCE

Dow Corning makes specific recommendations concerning on-site verification of adhesion and compatibility of the sealant joints.

These are to be carried out periodically as per recommendations and are designed to help ensure the long term, problem-free performance of the structurally sealed modules. Damaged joints may be repaired using DOW CORNING 895 Sealant. The product will adhere to cured neutral silicone sealants from Dow Corning provided these exhibit a clean knife-cut or abraded surface.

## TECHNICAL SERVICES

Consult Dow Corning's Technical Services departments for further advice on specific applications: Dow Corning S.A.

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## HANDLING PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED. 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 FROM YOUR LOCAL DOW CORNING SALES REPRESENTATIVE.

## USABLE LIFE AND STORAGE

When stored at or below 30°C (86°F) in the original unopened containers, DOW CORNING 895 Sealant has a usable life of 12 months from the date of production.

## PACKAGING

This product is available in 184 liter drums, 20 liter pails, 310ml cartridges (12 per box) and 600ml sausages.

## LIMITATIONS

DOW CORNING 895 Sealant should not be used for structural applications without the prior written approval of Dow Corning Construction Industry Technical Services Department. Each project should be specifically and separately approved by Dow Corning.

Project specific approval involves the following prerequisites:

- Joint dimensioning and print reviews.
- Successful laboratory adhesion and compatibility testing to all building components.
- Observance of professional sealant application and workmanship standards.
- Users should always consult Dow Corning Technical Services Department for adhesion recommendation.

Dow Corning shall not be held liable for any possible claims arising from structural glazing use of DOW CORNING 895 Sealant for projects which have not been specifically approved by Dow Corning.

For projects which have been approved, Dow Corning will issue a structural adhesion warranty on a case by case basis at the user's request. It is the user's exclusive responsibility to ensure project compliance with local building regulations. Because of the risk of incompatibility, DOW CORNING 895 Sealant should not come into contact with, or be exposed to, sealants that liberate acetic acid.

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

## HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Health,

Environment and Regulatory Affairs specialists available in each area.

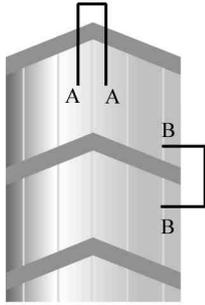
For further information, please consult your local Dow Corning representative.

## WARRANTY INFORMATION - PLEASE READ CAREFULLY

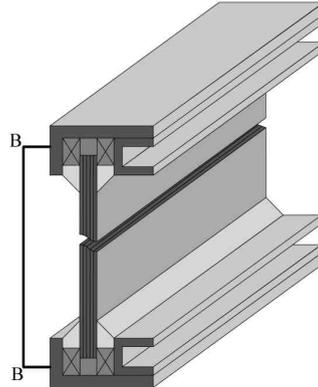
The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Dow Corning's products are safe, effective, and fully satisfactory for the intended end use. Dow Corning's sole warranty is that the product will meet the Dow Corning 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. Dow Corning specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability. Unless Dow Corning provides you with a specific, duly signed endorsement of fitness for use, Dow Corning disclaims liability for any incidental or consequential damages. Suggestions of use shall not be taken as inducements to infringe any patent.

## Typical Examples of Joint Design

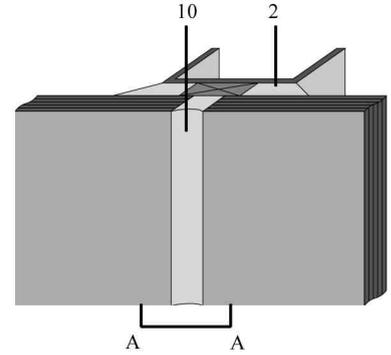
**Figure 2: System for 2-sided structural glazing.**



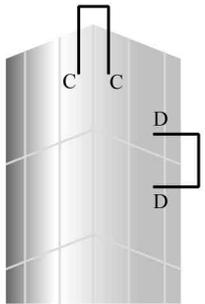
**Figure 2A: Transom detail. Examples of structural glazing designs: 2-sided design (installed on site).**



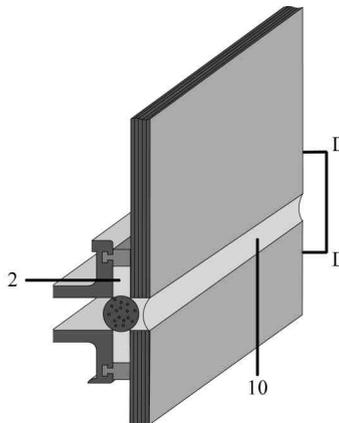
**Figure 2B: A mullion detail.**



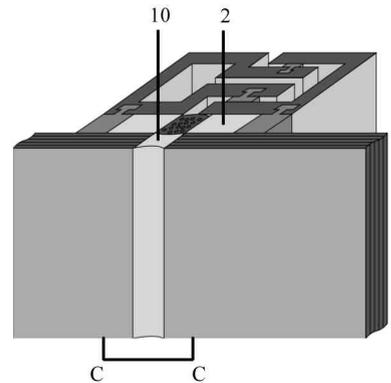
**Figure 3: System for 4-sided structural glazing.**



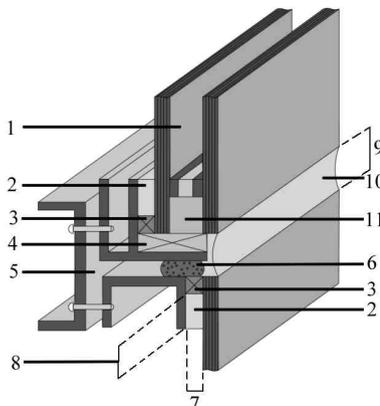
**Figure 3A: Transom detail. Examples of structural glazing designs: 4-sided design (factory glazed).**



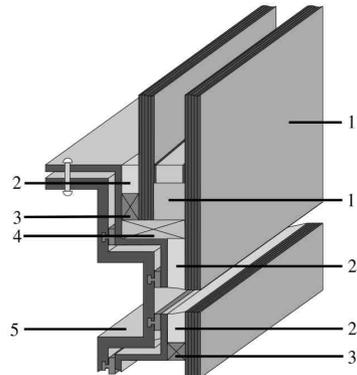
**Figure 3B: A mullion detail.**



**Figure 4: Design with supported insulating glass unit.**



**Figure 5: Design with stepped insulating glass unit.**



### Legend

1. Insulating glass unit
2. Silicone structural seal (DOW CORNING 895 Structural Glazing Sealant)
3. Silicone rubber spacer block
4. Silicone setting block
5. Aluminium profile
6. Backer rod
7. Structural sealant width
8. Structural sealant bite
9. Weatherseal dimension
10. Silicone weatherseal (DOW CORNING® 897 Natural Stone and Facade Sealant)
11. Silicone insulating glass seal (DOW CORNING® 3362 Insulating Glass Sealant)