

# Creative glazing and façade construction with silicone sealants



Picture 1

**Products and applications**

# Dow Corning – your system partner



With outstanding design versatility, Dow Corning's state-of-the-art silicone technology provides a **complete and fully integrated range of products** for use in a comprehensive range of sealing applications. These silicone adhesives and sealants provide a totally compatible and functional system that opens the way for creative design possibilities that have previously not been thought possible, whilst meeting the increasingly stringent and demanding design requirements for structurally glazed facades and curtain wall façade construction.

Dow Corning silicone products for structural glazing are characterised by their weathering properties, UV resist-

ance, permanent elasticity and long service life. With safety always the top priority, Dow Corning provides silicone solutions, which are qualified to the European Technical Approval (ETA), based upon the European guideline on structural glazing (European Technical Approval Guideline – ETAG 002).

Dow Corning's presence in the commercial glazing and façade market is unrivalled, with a **global network of products** and project implementation support for customers that need specific regional requirements in Europe, America and Asia.

The company's position as an innovative market leader is further enhanced

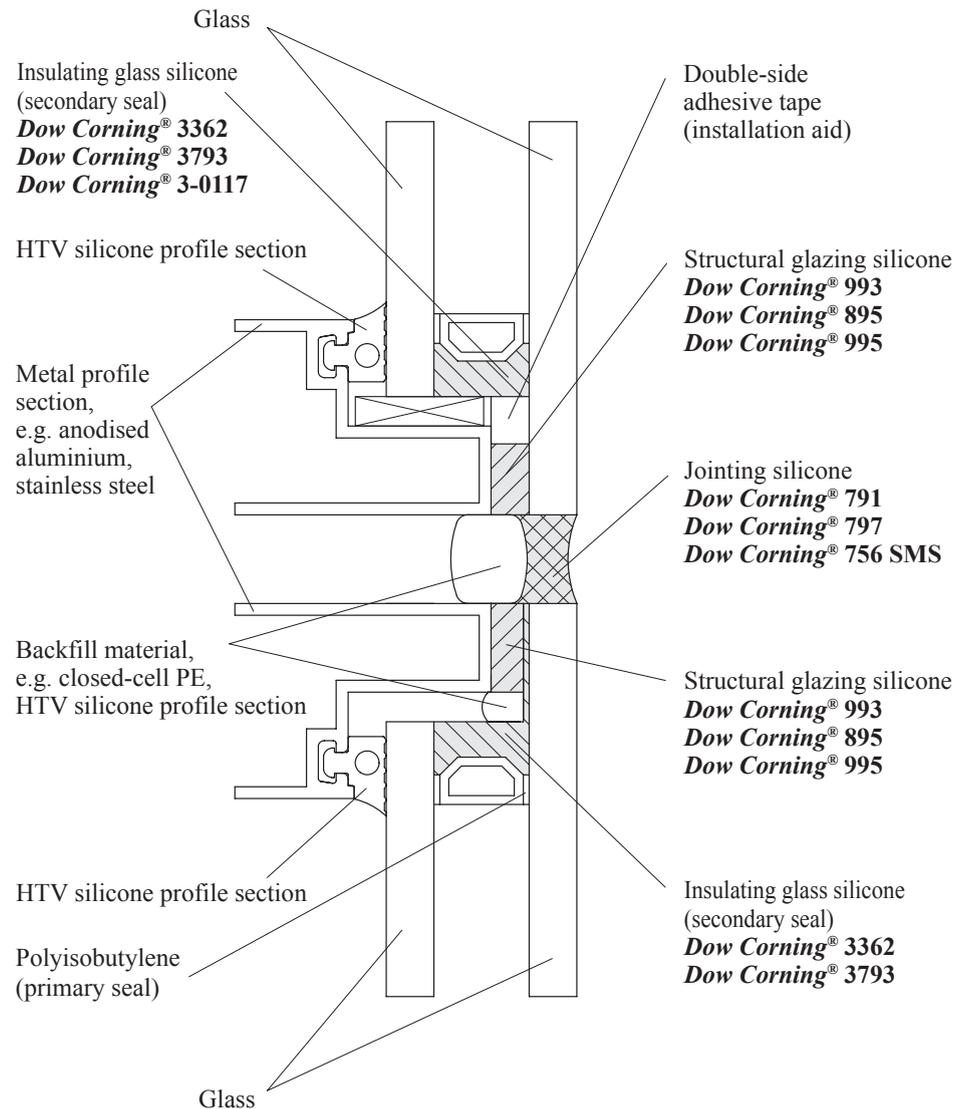
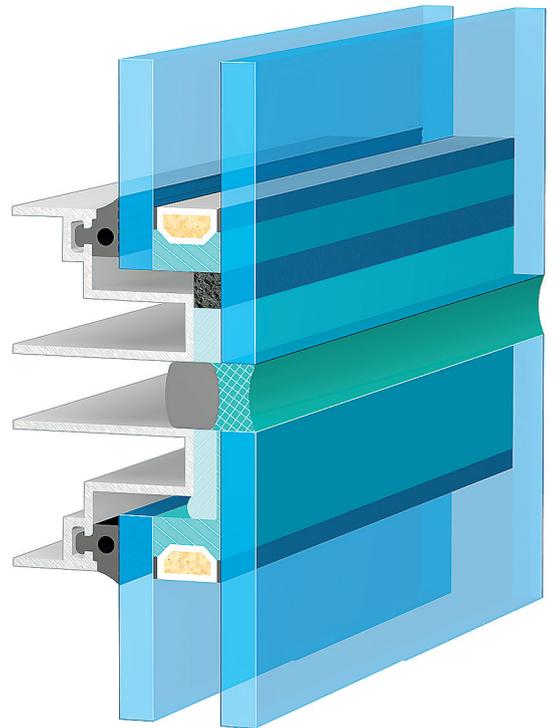
by its specialist skills in the area of structural glazing construction, which can be designed to provide hurricane, earthquake and explosion resistance.

A wealth of creative design opportunity is now available, one example has resulted in a General Technical Approval for Germany granted by building inspection authorities, for structural glazing with enamelled glass. This approval enables architects and investors to offer a choice of thousands of different colours and structural variations including full-cover, dot patterns, lines, on the basis of four different glass enamel collections used in conjunction with *Dow Corning*® 993 Silicone Structural Glazing Sealant.

# Structural glazing with stepped-insulated glass units

The load-bearing bonding connection to the metal frame structure is on the larger, external glass pane. To perform properly, the bonding connection must be correctly dimensioned to meet the environmental requirements. The insulating glass seal needs to meet rigorous strength, UV resistance and heat resistance specifications, although in this situation it does not have any load-bearing function.

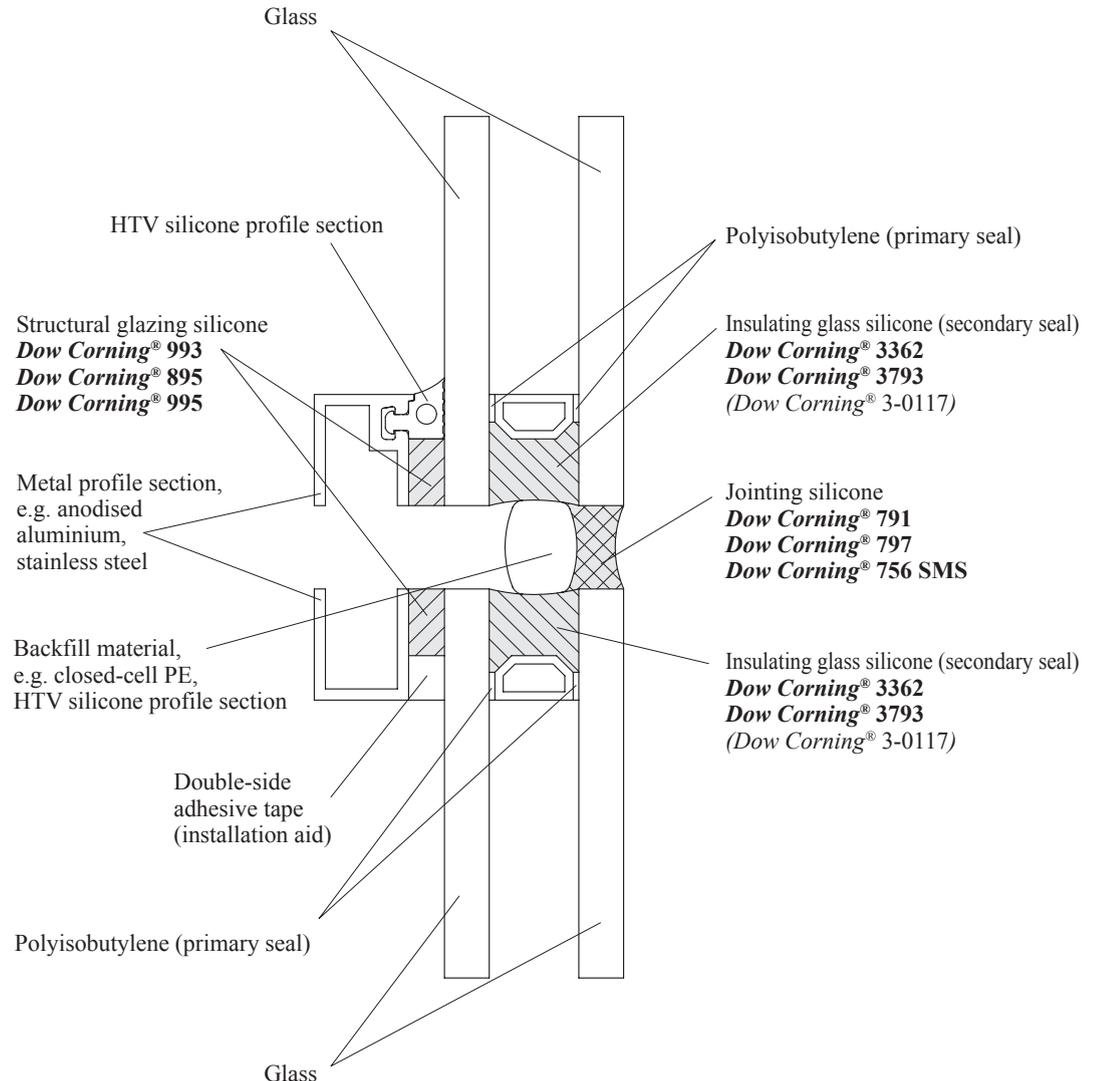
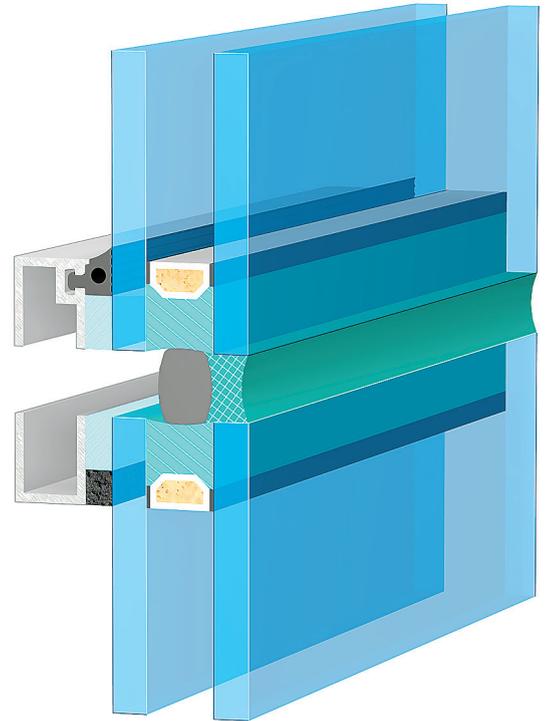
**Dow Corning offers a complete range of standard and custom project technical services for the use of their silicone adhesive and sealant products. These services include advice on joint design and the calculation of sealant bite dimensions.**



## Structural glazing with symmetric insulated glass units

The load-bearing bonding connection to the metal frame structure is located on the inner glass pane. The bonding connection must be correctly dimensioned to meet the environmental requirements. The insulating glass seal has two different functions: as well as sealing the space between the panes, it also forms the load-bearing bonding connection to the inner pane of glass. All dynamic loads (wind pressure/suction) are also transferred to the inner pane via the insulated glazing seal. This means that the 'secondary seal' needs to be dimensioned accordingly.

**Dow Corning offers a complete range of standard and custom project technical services for the use of their silicone adhesive and sealant products. These services include advice on joint design and the calculation of sealant bite dimensions.**



## Insulating glass secondary sealants

	<i>Dow Corning</i> <sup>®</sup> 3362	<i>Dow Corning</i> <sup>®</sup> 3793	<i>Dow Corning</i> <sup>®</sup> 3 - 0117	<i>Dow Corning</i> <sup>®</sup> 3540
Curing system	Neutral – alkoxy RTV, 2-component	Neutral – alkoxy RTV, 1-component	Neutral – alkoxy RTV, 1-component	Neutral – oxime RTV, 1-component
Handling / application	Mechanical application with pump and mixer, from large drums	Simple application process direct from cartridges or sausage packs, or from drums Mechanical application with pump and mixer from large drums		
Seal ready for load-bearing	After approx. 3 days	Dependent on joint geometry, temperature and air humidity / approx. 3 days – 3 weeks		
Joint geometry restrictions	No limit on joint depth	Joint depth limited to max. 14 mm		
Use in standard insulating glass	✓	✓	✓	✓
Symmetric and stepped insulating glass units for structural glazing	✓	✓	✓	
ETA (ETAG No. 002)	✓			
EN 1279	✓	✓	✓	✓

## Structural glazing silicone sealants

	<i>Dow Corning</i> <sup>®</sup> 993	<i>Dow Corning</i> <sup>®</sup> 895	<i>Dow Corning</i> <sup>®</sup> 995
Curing system	Neutral – alkoxy RTV, 2-component	Neutral – alkoxy RTV, 1-component	Neutral – alkoxy RTV, 1-component
Handling / application	Mechanical application with pump and mixer from large drums	Simple application process direct from cartridges or sausage packs, or from drums Mechanical application with pump and mixer from large drums	
Seal ready for load-bearing	After approx. 3 days	Dependent on joint geometry, temperature and air humidity / approx. 3 days – 3 weeks	
Joint geometry restrictions	No limit on joint depth	Joint depth limited to max. 14 mm	
Load-bearing bond connection between float glass and metal (or other substrates)	✓	✓	✓
ETA (ETAG No. 002)	✓	✓	
Bomb-blast resistance dimensioning parameters	✓		✓
Protective glazing “retrofit system”	✓		✓
General building inspectorate approval for “bonding on enamel”	✓		

## Weatherproofing silicone sealants

	<i>Dow Corning</i> <sup>®</sup> 797	<i>Dow Corning</i> <sup>®</sup> 791	<i>Dow Corning</i> <sup>®</sup> 756 SMS	<i>Dow Corning</i> <sup>®</sup> FS 700
Curing system	Neutral – alkoxy RTV, 1-component	Neutral – alkoxy RTV, 1-component	Neutral – oxime RTV, 1-component, “Aesthetic sealant”	Neutral – alkoxy RTV, 1-component
Handling / application	Simple application process direct from cartridges or sausage packs, or from drums			
Joint geometry restrictions	Joint depth limited to max. 14 mm			
Weathering- resistant	✓	✓	✓	✓
UV-resistant	✓	✓	✓	✓
Permanent elasticity	✓	✓	✓	✓
Suitable for sealing natural stone substrates*			✓	
Reduces dirt streaking on glass facades			✓	
Reduces dirt pick-up on sealant surface			✓	
DIN 4102 “B1” low flammability				✓

\*Not suitable for sandstone. Recommend testing of all substrates.

## Complementary products

Product	Application
<i>Dow Corning</i> <sup>®</sup> R40	Cleaner for glass, metal and other substrates
<i>Dow Corning</i> <sup>®</sup> Primer 1200 OS	Primer, suitable for anodised aluminium and stainless steel
<i>Dow Corning</i> <sup>®</sup> Primer C	Primer, suitable for enamel-painted surfaces
<i>Dow Corning</i> <sup>®</sup> Glazingmount	PU foam installation aid (spacer tape)
<i>Dow Corning</i> <sup>®</sup> 3522 Concentrat	Cleaner for metered feed, mixing and application systems

Details of other complementary products available on request.

## Your Dow Corning Construction contact details:

### Toll Free Numbers:

From Belgium	0800 80 522
From France	0805 54 04 39
From Germany	0800 52 50 258
From Italy	800 92 83 30
From Spain	900 813161
From United Kingdom	0800 91 72 071

### All other countries:

For English	+32 64 51 11 59
For French	+32 64 51 11 59
For German	+49 611 237503
For Italian	+32 64 51 11 73
For Spanish	+32 64 51 11 66
For Russian	+7 495 725 43 19

Fax number from all countries: +32 64 88 86 86

## Your Dow Corning contact details (e-mails) :

Technical inquiries:	eutech.info@dowcorning.com
Marketing:	construction.marketing@dowcorning.com
Quality Bond :	qualitybond@dowcorning.com
EHS inquiries :	europe.ehs@dowcorning.com
Reach inquiries:	reachsupport@dowcorning.com

## Your Dow Corning Sites:

### EUROPEAN AREA HEADQUARTERS

Dow Corning Europe S.A.  
Parc Industriel Zone C  
Rue Jules Bordet  
B-7180 Senefte, Belgium  
Tel : +32 64 88 80 00  
Fax : +32 64 88 84 01

Dow Corning GmbH  
Rheingaustraße, 34  
D-65201 Wiesbaden, Germany  
Tel: +49 611 23 71  
Fax: +49 611 237 601

## Other European Sites:

### TURKEY

DOW CORNING KİMYA SANAYİ  
VE TİCARET LİMİTED ŞİRKETİ  
Halk Sokak Pakpen Plaza No: 44 Kat:9-10  
34734 Kozyatağı / İstanbul, Türkiye  
Tel: +90 216 4677645  
Fax: +90 216 4673909

### RUSSIAN FEDERATION

Dow Corning Representation Office  
17/23 Taganskaya Street  
Moscow 109147, Russia  
Tel: +7 495 783 6648  
Fax: +7 495 783 6652

### POLAND – CENTRAL EASTERN EUROPE

Dow Corning Polska Sp.z o.o  
15 Marynarska Street  
02 - 674 Warszawa, Poland  
Tel: +48 22 36 04 100  
Fax: +48 22 36 04 114

### GREATER GULF COUNTRIES

Dow Corning Europe S.A. - Rep. Office  
Post Box 73749, Office # 1201, Regal Tower,  
Business Bay Area, Dubai – UAE  
Tel : +971-4-4310673  
Fax : +971-4-3607115

Picture 1 - Building: Kranzler Eck, Berlin. Studio: MM Fotowerbung, Kaufungen  
Picture 2 - Building: Kongresshaus, Villach. Ausführung: Eckelt Glas, Steyr. Studio: CROCE & WIR, Graz.  
Picture 3 - Building: Main Airport Center, Frankfurt/Main. Studio: Palladium Photodesign, Köln.  
Picture 4 - Building: Roof of the Olympic Stadium, Athen. Studio: Palladium Photodesign, Köln.  
Picture 5 - Building: International Finance Centre, Hong Kong.

Visit us on: [dowcorning.com/construction](http://dowcorning.com/construction)

Dow Corning is a registered trademark of Dow Corning Corporation.  
We help you invent the future is a trademark of Dow Corning Corporation.

© 2014 Dow Corning Corporation. All rights reserved.  
Form Number: 62-1370D-01



Printed in  
Germany on  
FSC-Certified  
Paper

**DOW CORNING**

*We help you invent the future.™*