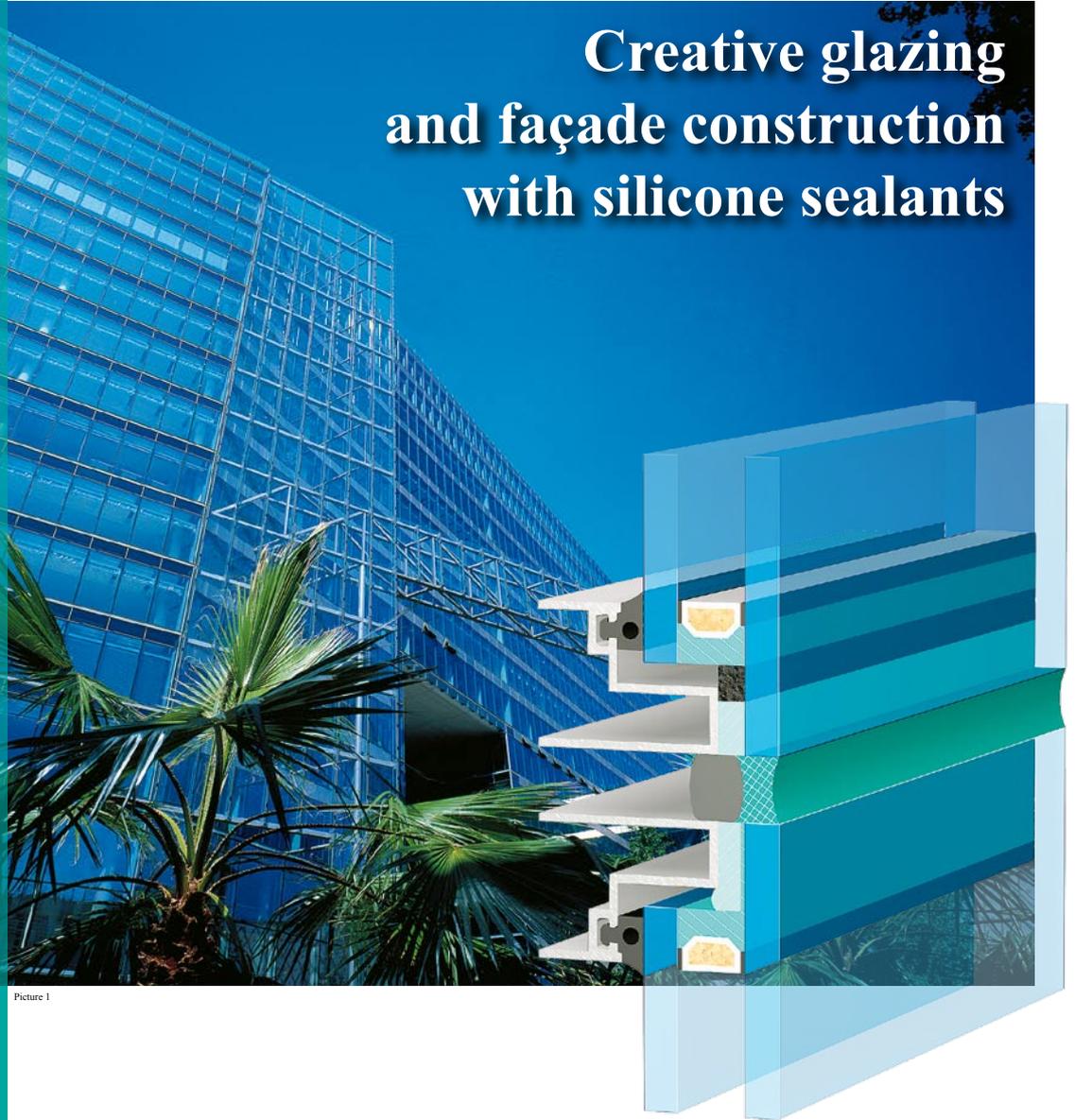


Creative glazing and façade construction with silicone sealants



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

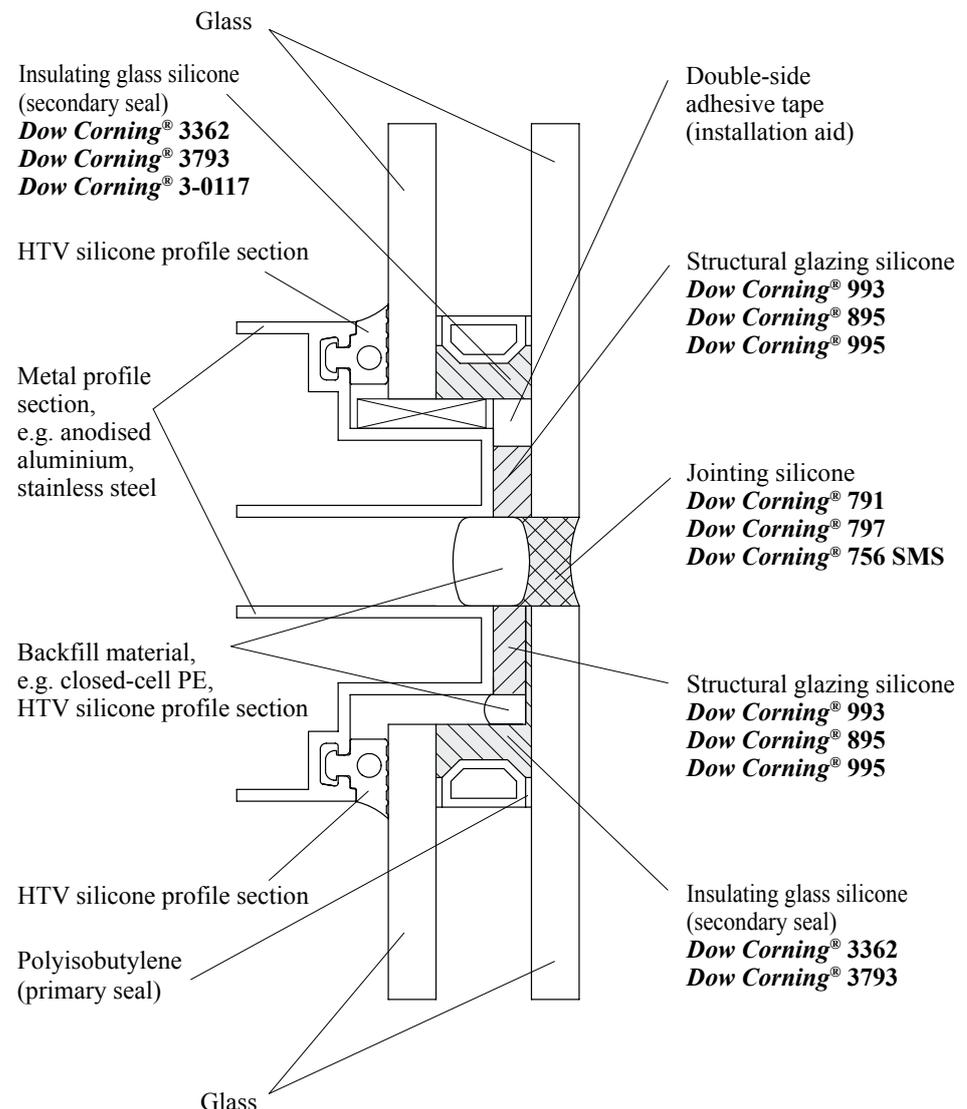
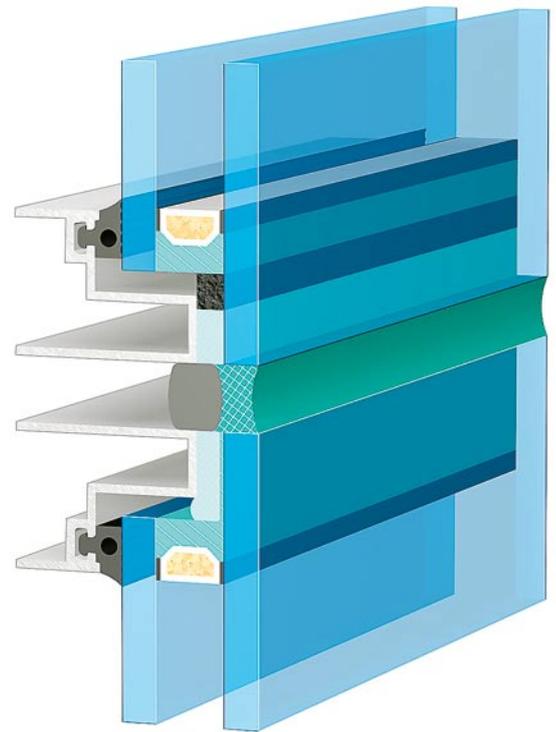
by its specialist skills in the area of structural glazing construction, which can be designed to provide hurricane, earthquake and explosion resistance.

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.

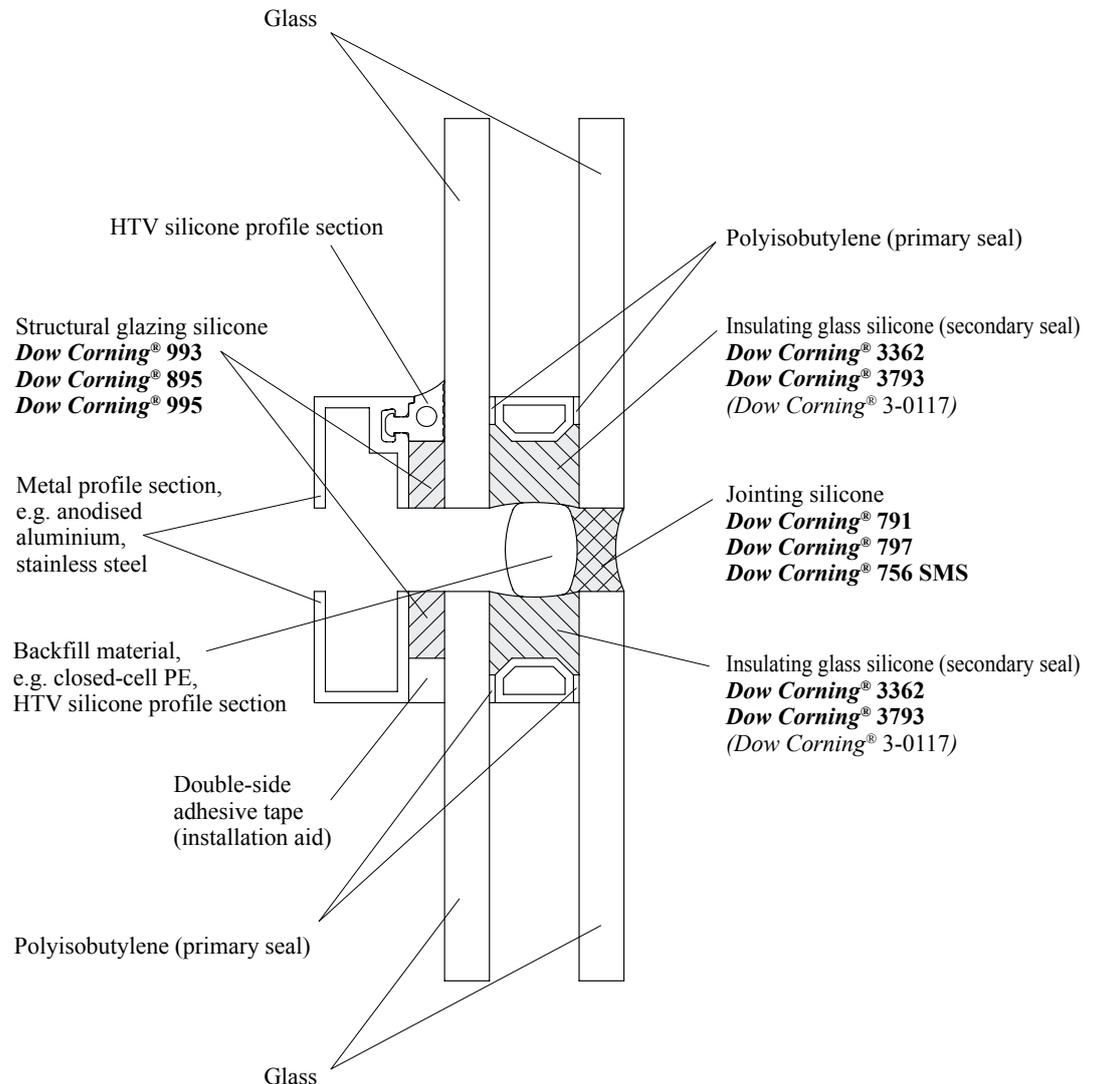
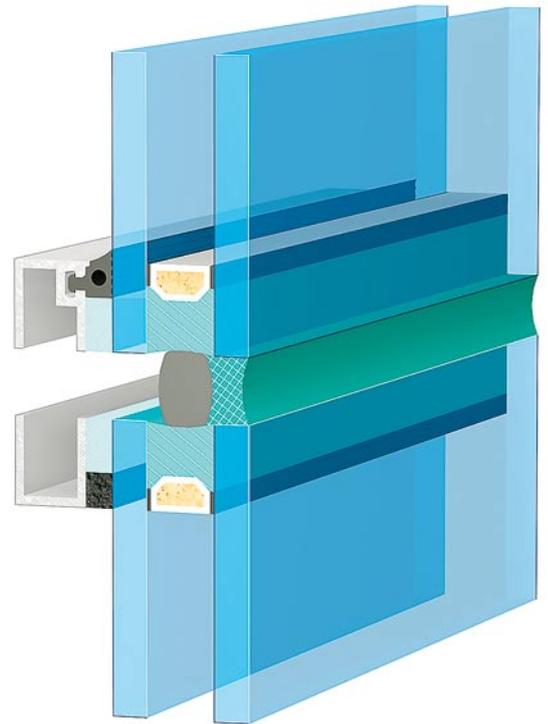
Dow Corning offers a complete range of standard and custom project technical services for the use of their silicone adhesive and sealant products. These services include advice on joint design and the calculation of sealant bite dimensions.



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> [®] 3362	<i>Dow Corning</i> [®] 3793	<i>Dow Corning</i> [®] 3 - 0117	<i>Dow Corning</i> [®] 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> [®] 993	<i>Dow Corning</i> [®] 895	<i>Dow Corning</i> [®] 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> [®] 797	<i>Dow Corning</i> [®] 791	<i>Dow Corning</i> [®] 756 SMS	<i>Dow Corning</i> [®] 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> [®] R40	Cleaner for glass, metal and other substrates
<i>Dow Corning</i> [®] Primer 1200 OS	Primer, suitable for anodised aluminium and stainless steel
<i>Dow Corning</i> [®] Primer C	Primer, suitable for enamel-painted surfaces
<i>Dow Corning</i> [®] Glazingmount	PU foam installation aid (spacer tape)
<i>Dow Corning</i> [®] 3522 Concentrat	Cleaner for metered feed, mixing and application systems

Details of other complementary products available on request.

Contact addresses

Dow Corning has sales offices, production workshops and research and technology laboratories throughout the world. Telephone numbers for branches near you can be found on the Internet at www.dowcorning.com, or are given for the branch offices listed below.

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