Sealant Compatibility
and Structural Glazing

Product Application Information

Edge deletion is necessary to ensure that chemicals in certain sealants do not attack the silver layer in the coating. Extensive testing has shown that for some of the coating types, edge deletion is not necessary. Note: when a sealant is put behind an existing coating, a colour change may be visible.

Different sealant types use different mechanisms for sealant cure and some of the chemicals used in the curing process may attack the coating. For this reason, only approved sealants should be used.

The use of untested coated glass or unapproved sealants requires edge deletion in any case!

Important Note:

- Guardian SunGuard® SuperNeutral (SN), ClimaGuard Sun T and Premium 2S (P2S) products: Edge deletion required.
- SunGuard® Solar, HD Plus and Guardian High Durable: no edge deletion required.
- SunGuard® High Performance (HP and DS) and ClimaGuard Neutral 70: refer to "General Processing Guideline Table: 1 Edge Deletion – Applicable Product"

Where edge deletion is required: remove the coating by using grinding appliances and grinding wheels developed specifically for this purpose (Fig. 3). More information about the appropriate types may be directly requested from Guardian.

Any overlapping of coatings and sealants should be limited to a maximum width of 2mm.
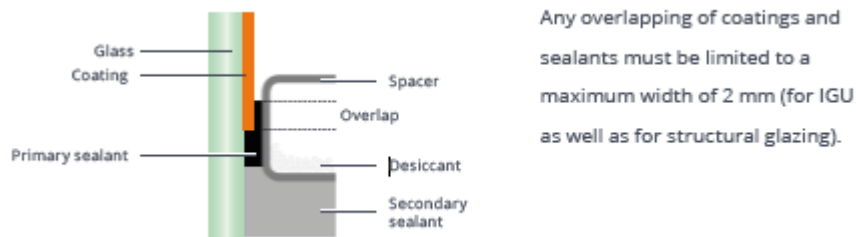Fig. 1 illustrates this requirement as an example in an insulated glass unit.

Fig.1 – Overlap

The ground-off margin should generally not be wider than 10mm, as otherwise it may enter the visible area. If for any reason the sealing depth of the insulated glass has to be increased, then the width of edge deletion of the coating must be increased accordingly. A coating detector can be used to check whether all coating has been removed (Fig. 2).
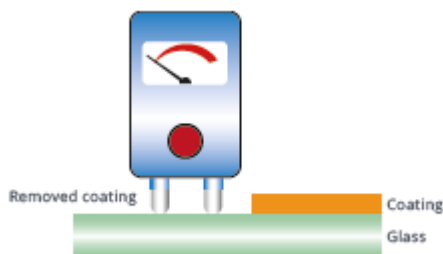

Fig.2   Fig.3
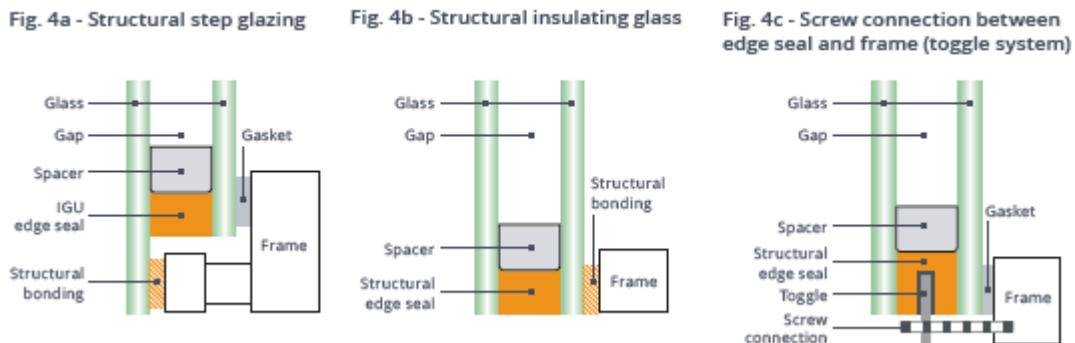
Important Note:

Where the edge deleted part is visible from the outside of the building, a colour difference will be visible with the coated part of the glass. In case of structural glazing, please contact the sealant manufacturer for further information. Guardian recommends a mock up to secure the static requirements. For special applications like step glazing with exposed coated surface (e.g. roofs, corners of structural glazing, etc.), please consult the local Technical Department at Guardian.

Guardian SunGuard® coatings in structural glazing

A structural glazing façade is designed as an aluminum-framework in combination with special glass units. This aluminum glass-system is hanged into a conventional curtain wall construction.
The glass is glued directly on the metal sub-construction or fixed by special screw systems between edge seal and frame. High modulus silicones are used for structural gluing and as structural sealant.

Possible structural glazing build ups are shown in Fig. 4a – c.

Fig. 4a - Structural step glazing   Fig. 4b - Structural insulating glass   Fig. 4c - Screw connection between edge seal and frame (toggle system)

If coatings are intended to be in contact with any silicone with structural functionality (edge seal or bonding) please contact Guardian for information.

For edge deletion requirement please refer to *"General Processing Guideline Table: 1 Edge Deletion –Applicable Product"*

ClimaGuard® Neutral 70 / SunGuard® High Performance and Double Silver:

- For Structural Glazing edge deletion is required
- When sealants which are not in the Guardian approved list are going to be used for fabrication of insulated glass units
- When fabricating offset insulated glass units, also called as step glazing (for example, a butt-glazed corner application), any exposed coated surface of the products, from the offset edge to the sight line.
- When lamination of products with coating surface facing the PVB

It is the full responsibility of the processor ensuring the quality of the edge deletion as well as the adhesion of structural silicones on edge-deleted surfaces.

Typically, applications with structural bonding need to be tested and approved. If a European certification for structural glazing according to ETAG 002-1 is required, please contact Guardian for detailed information about suitable glass types and tested coating-sealant combinations complying with the ETAG 002-1 requirements.

Compatible sealants for SunGuard® High Performance
Double Silver and ClimaGuard N70® products for Encapsulated Glazing

Manufacture	Sealant ID	Application	Encapsulated HP/DS/N70
Dow Corning	DC 3362	IG Sealant	●
	DC 3363	IG Sealant	●Not compatible with Royal Blue 40
	DC 3793	IG Sealant	●
	DC 982	IG Sealant	●
	DC 983	Structural Silicone	●
	DC 791	Silicone Weatherproofing Sealant	●
	DC 796	Adhesive Sealant	●
	DC 799	EU Glaze & GO	●
	DC 993	Structural Silicone	●
	DC 791	Structural Silicone	●
GE Momentive	Ultraglaze SSG4000E	DC 796	●
	SCS2003 Silpruf Black	DC 799	●
	IGS 3703E	DC 993	●
	IDS 3723	IG Sealant	●
Fenzi	Thiover	IG Sealant	●
	Hotover 2000	IG Sealant	●
Tremco	JS 442 W	IG Sealant (Polyurethane)	●
	JS 562	IG Sealant	●
	JS 680	IG Sealant	●
	Proglaze II	Structural Silicone	●
	Tremsil 500	Neutral Silicone Sealant	●
	Spectrem 2	Structural Silicone	●
SikaSil	IG-25	IG Sealant (Silicone)	●
Kommerning	GD 116	Polysulfide	●
	GD 677	Polyurethane	●
	GD 920	Silicone	●
Silande	MF 882	IG Sealant (Silicone)	●
	MF 881	Structural Silicone	●
	MF 881-25HM	IG Sealant for Argon filled IGU	●
Baiyun	SS622	Structural Silicone	●
	SS621	Structural Silicone	●
	SS616	IG Sealant (Silicone)	●
	SS601	Neutral Silicone Sealant	●
	SS628	Structural Silicone	●
	SS528	IG Sealant (Silicone)	●
Topseal	IG-969	IG Sealant (Silicone)	●
	793	Structural Silicone	●
	Prime-X	Window & Door Glazing	●
	966	Weather seal	●
Shinwoo	Plus 020	IG Sealant	●
	Plus 030	Structural Silicone for U insert	●
	Plus 040	Structural Silicone	●

| Meriseal | Meriseal IG 20 | IG Sealant | ● |
| | Meriseal SG 50 | Structural Silicone | ● |

- Products Compatible with Sealant No Edge Deletion Required for Normal Glazing. However, Edge Deletion is required for the exposed edge in the Step Glazing.

These guidelines are for information purposes only and Guardian does not provide any warranty with respect to their content. Guardian provides only a limited warranty for SunGuard/ClimaGuard products and not regarding the intended further processing or product, which remains the full responsibility of the processor.

Important Note:

The responsibility for a proper protection of the SunGuard High Performance coatings is always at the processor.

Verification

The signature below verifies that the processor has read and understands the full content of the SEALANT COMPATIBILITY AND STRUCTURAL GLAZING /Product Application Information / SUNGUARD_SealantCompatibility_TI_AME_0523

Name/Signature: _____   Date: _____

Company/Stamp: _____   Title: _____

Please return this page signed via email at fcesupport@guardian.com.

Guardian SunGuard® and ClimaGuard ® Products are available at KSA and UAE in middle east region.
Please contact your local Guardian representative or your local Technical Advisory Center for further information.

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