

## Technical information

### Sealant Compatibility with VILAX Laminated Glass

Architects, engineers and glaziers are faced with a complex decision when selecting sealants to best satisfy building project requirements. There are a number of generic type sealants, each with its own base material.

Within a generic type, individual sealant formulations will have varying quantities of plasticizers, solvents, curing agents and/or fillers. Each product is specifically formulated to provide properties making it suitable for some applications but not for others. Understanding these products and their inherent properties is a critical requirement in making the proper overall sealant choice.

The laminate glass should not be exposed to the direct contact with organic solvents. Frames and structures should incorporate efficient drainage to prevent the contact of water with the edges of laminated glass for long periods of time. According to the formulation of the sealant defects can be presented in the edges of the laminate glass, such as, fading of the PVB, bubbles or delamination. Due to factors like:

- Plasticizers, solvents or other ingredients present in the sealant not compatible with PVB.
- Plasticizers that can dissolve the PVB.
- Liberated vapors from the sealant that spread attacking the PVB, for example, those polysulfide liberates water vapor and several plasticizers, while some silicones liberate acetic acid, ammonium, alcohol and amines.

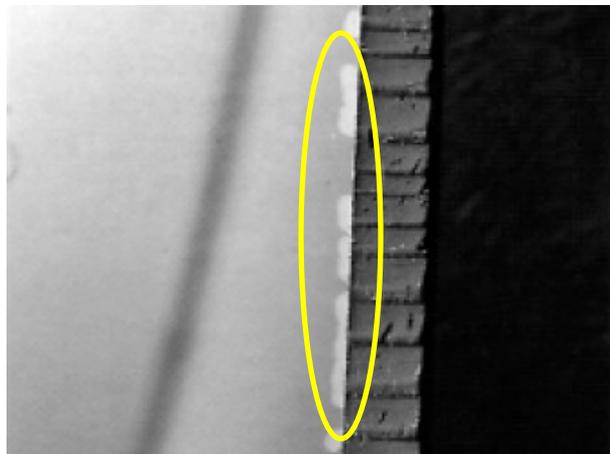


Figure 1. Effect of the sealant in the borders of the laminate glass

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When selecting a sealant for a glazing system, the specifier must consider a number of influences including:

1. Resistance to water penetration into the structure under all weathering conditions.
2. Sealant weather ability. Does it deteriorate or change physically over time?
3. Mechanical properties, such as the ability to accommodate thermal movement, adhesion, etc.
4. Compatibility with the other elements in the glazing system, including the laminated glass where the sealant or sealant by-products are likely to contact one another.
5. Capacity to fulfill the total requirements of installation
6. The depth of the channel in the one which the glass is mounted
7. The contact grade between the sealer and the border of the glass

The following [Table 1](#) is a summary of the results obtained by studies of the Solutia trade mark for its PVB Saflex.

Sealer	Type	Affected border %	Maximum penetration of the defect in the border mm
Sika 552 / Sika AG	Hybrid	5	1
DC Instant Glaze 18579 (MAS) / Dow Corning	Silicone	11	2
Tremsil 300 / Tremco	Silicone	11	2
DC 399 / Dow Corning	Silicone	59	3
DC 791 / Dow Corning	Silicone	93	3
DC 991 / Dow Corning	Silicone	27	3
DC 995 / Dow Corning	Silicone	89	3
GE Construction SCS1200 / General Electric	Silicone	85	3
GE RapidStrength RGS7700 (MAS) / General Electric	Silicone	25	3
GE UltraGlaze SSG4400 (MAS) / General Electric	Silicone	17	3
Tremsil 600 / Tremco	Silicone	22	3
DC 756 / Dow Corning	Silicone	55	4
DC 799 / Dow Corning	Silicone	82	4
DC 983 (MAS) / Dow Corning	Silicone	17	4
DC 999A / Dow Corning	Silicone	57	4
GE SilGlaze 11 SCS2800 / General Electric	Silicone	78	4

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Sealer	Type	Affected border %	Maximum penetration of the defe in the border mm
GE SilPruf LM SCS2700 / General Electric	Silicone	50 	4 
GE UltraGlaze SSG4000 / General Electric	Silicone	75 	4 
GE UltraGlaze SSG4000AC / General Electric	Silicone	79 	4 
DC 119 / Dow Corning	Silicone	52 	5 
GE Construction –N SCS1800 / General Electric	Silicone	35 	5 
GE SilPruf SCS2000 / General Electric	Silicone	66 	5 

**Tabel 1.** Summary Table of Sealant Compatibility Results.

For systems and applications where the edge defects should be minimized, the results can be used to compare the relative potential among the listed products. The data are only given as reference. It can be in the market other products that fulfill the requirements for their application in the installation of laminated glass.

If you have any doubt please consults to Extralum's Engineering Department.