

English

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Edge stability test

# SentryGlas® outperforms stiff/ structural PVB



***kuraray***

**Trosifol® SentryGlas®**

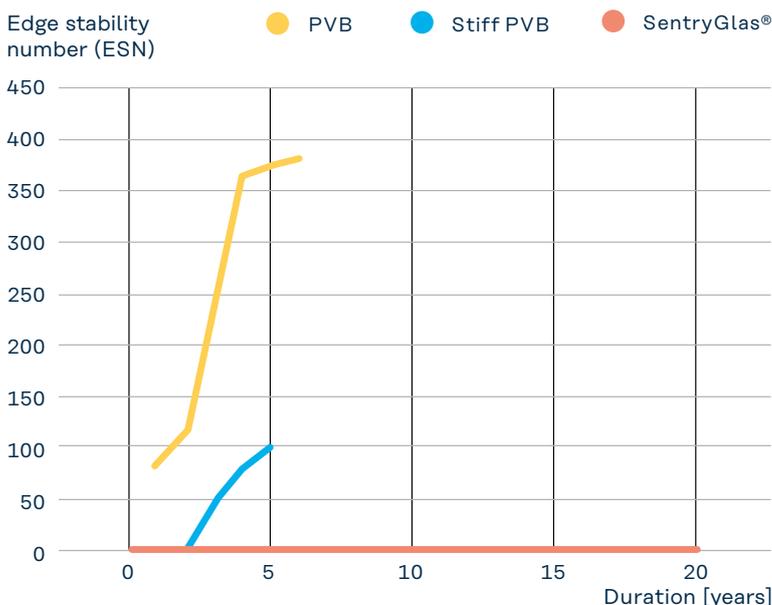
Edge stability is defined as a laminate’s resistance over time to form defects along its edge. These defects can arise in the form of small ‘bubbles’ in the laminate or as discoloration of the laminate itself. For designers and architects, edge stability is therefore critical, especially when the edges are exposed to the environment. Ideally, laminated glass should show no signs of bubbles or delamination over the complete life of the building.

Compared to standard PVB and Stiff/Structural PVB interlayers, SentryGlas® ionoplast is more resistant to moisture and the effects of weather ( Sun, salt etc), particularly at temperatures between -50 °C (-58 °F) and +82 °C (180 °F). These are the consistent findings in both laboratory tests and research in real-life projects. Due to the exceptional edge stability of SentryGlas® interlayer, no undesired changes such as bubbles or delamination have been found to date after more than 20 years of natural weathering in glass panels with open edges that have been exposed to hot and humid climates of Florida in US. SentryGlas® laminates recorded an Edge Stability Number (ESN) of 0 after more than 20 years of natural weathering and completely outperformed all

other interlayer options available in the market which recorded ESN numbers of 380 after 6 years for standard PVB and 100 after 5 years for Structural PVB. See the graphical representation. Important to mention ESN comparison for different interlayers must be made for the same type of weathering test.

ESN is a weighted system that gives higher importance for progressively deeper defects (bubbles or delaminations. A laminate with no defects would have an ESN of 0 while the maximum would be 2500 (equivalent to continuous defects measuring > 6.4 mm (¼”) around the entire perimeter). ESN is calculated by the formula below.

### Edge stability test in Florida



### ESN calculation formula

$$ESN = 1*(PCT1) + 4*(PCT2) + 9*(PCT3) + 16*(PCT4) + 25*(PCT5) \text{ where:}$$

PCT	Defect length
PCT1	= % Defect length with depth < 1/16 inch (< 1.6 mm)
PCT2	= % Defect length with depth 1/16 to < 1/8 inch (1.6 to < 3.2 mm)
PCT3	= % Defect length with depth 1/8 to < 3/16 inch (3.2 to < 4.7 mm)
PCT4	= % Defect length with depth 3/16 to < 1/4 inch (4.7 to < 6.4 mm)
PCT5	= % Defect length with depth > 1/4 inch (> 6.4 mm)

**TAB • Note:** The edges of glass may also come in contact with sealants. Please contact your local Kuraray representative for sealant compatibility data for Trosifol® PVB and SentryGlas® ionoplast.

### FOR FURTHER INFORMATION

on products from Kuraray, please visit [www.kuraray.com](http://www.kuraray.com).

You can find further information on our Trosifol® and SentryGlas® products at [www.trosifol.com](http://www.trosifol.com).

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