

November 03, 2021

Frameless Hardware Company LLC
4361 Firestone Blvd.
South Gate, CA 90280

RE: Sealant Compatibility Test with Sentryglas® Interlayer


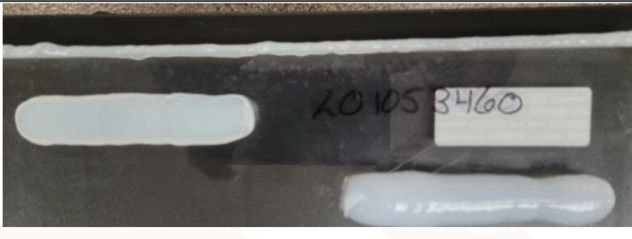


Two separate lots of both S450C and S150C were tested in accordance with standard ETAG 002, 5.1.4.2.5 Method B - Effects of Materials in Contact with UV, Peel Test with Incisions – using Sentryglas® samples.

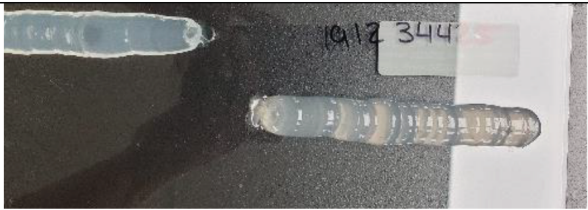
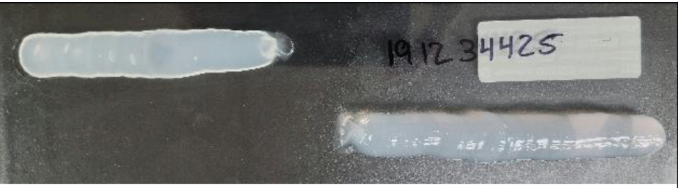


Each sealant lot was applied to the Sentryglas® in (3) different scenarios:

1. 17 mm bead to the FACE of the Sentryglas® (Laminate Label Side).
2. 17 mm bead to the BACK of the Sentryglas®.
3. 9 mm bead to the edge of the conjoined panels, interlayer.



After the sealant was applied to the panels, they were allowed to cure for 72 hours at 72°F at 50% RH. The panels were then placed into a Xenon QSUN with the Laminate Label side facing away from the light source and subjected to ASTM G155 for 504 hours. After 504 hours, the beads were manually peeled back, and the area was observed for failure mode and staining/discoloration. Below are the results:

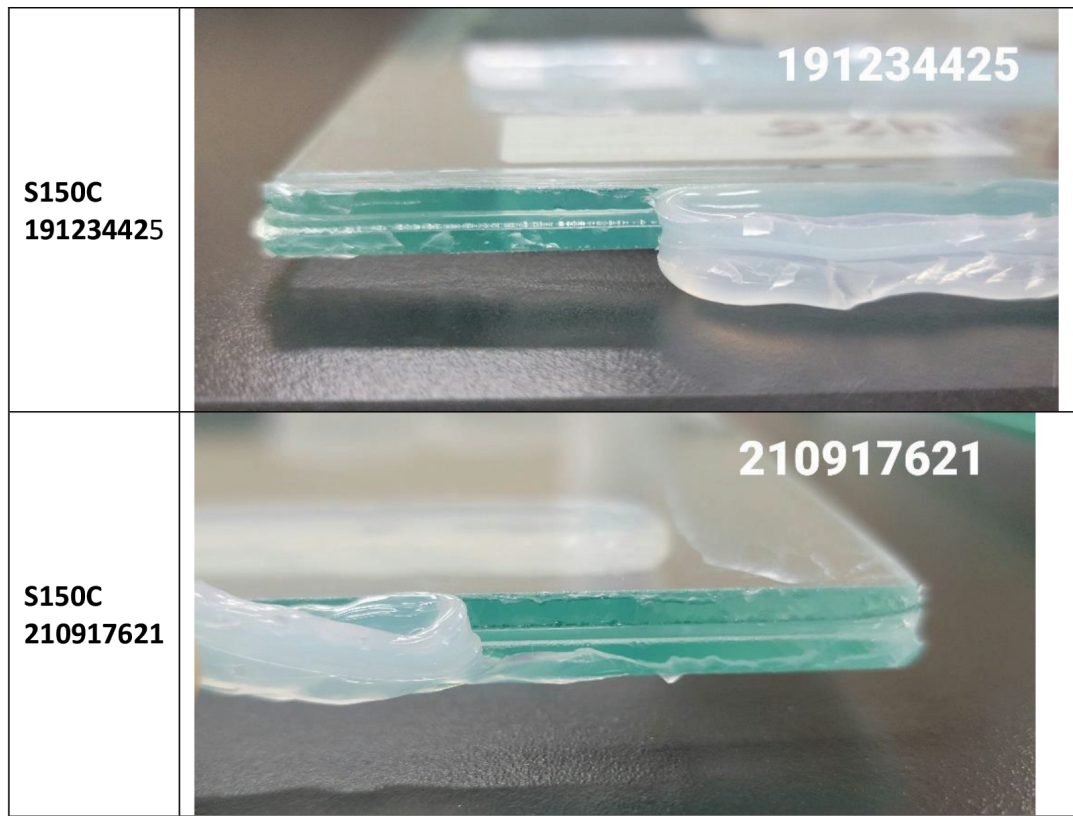
PHOTOS OF FACE/BACK

	Prior to UV Exposure	After 504 Hours UV Exposure
S450C 201053460		
S450C 210857230		

S150C 191234425		
S150C 210917621		

PHOTOS OF INTERLAYER AFTER 504 HOURS

S450C 201053460		
S450C 210857230		



OBSERVATIONS

Material	Position on Sentryglas	Failure Mode	Staining/Discoloration
S450C 201053460	FACE	100% Cohesive	Slight Yellow Hue*
S450C 201053460	BACK	100% Cohesive	Slight Yellow Hue*
S450C 201053460	Interlayer	50% Cohesive / 50% Adhesive	None
S450C 210857230	FACE	100% Cohesive	Slight Yellow Hue*
S450C 210857230	BACK	100% Cohesive	Slight Yellow Hue*
S450C 210857230	Interlayer	100% Cohesive	None
S150C 191234425	FACE	100% Adhesive	Slight Yellow Hue*
S150C 191234425	BACK	100% Adhesive	Slight Yellow Hue*
S150C 191234425	Interlayer	100% Adhesive	None
S150C 210917621	FACE	100% Cohesive	Slight Yellow Hue*
S150C 210917621	BACK	95% Adhesive / 5% Cohesive	Slight Yellow Hue*
S150C 210917621	Interlayer	50% Cohesive / 50% Adhesive	None

*The slight yellow hue is noticed only on thick sections of the sealant beads and is dependent on the observation angle.

CONCLUSION

Incompatibility between the sealant and Sentryglas® can be indicated by discoloration of one of the materials. A slight yellow hue can just barely be noticed when S150C or S450C is placed on the face or back of the Sentryglas® followed by exposure to UV light. However, no staining, discoloration, or migration was noticed when the sealants were applied to the conjoining interlayer. Samples are being returned to Frameless for their own observation.

Thank you!



Debra Heeter
R&D Lab Manager