



**AUTHORIZED LAMINATOR**

Authorization for Lamination of Saflex™ FlySafe™ 3D interlayers

Customer: Vandaglas Gmbh Certification Date: November 30, 2023  
 Plant Designation: Radeburg  
 Address: Bahnhofstraße 30 | Radeburg | | Germany  
 Tracking ID: FS-C23-352 Expiration Date: **November 29, 2024**

Through this notice, Eastman Chemical Company (hereinafter "Eastman") is authorizing the laminator indicated above whom is producing laminated glass at the designated plant location, as authorized to supply laminated glass with Eastman Saflex FlySafe 3D interlayer into the laminated glass market.

<b>Vandaglas Gmbh</b>
<b>Radeburg</b>
<b>Germany</b>
<b>Authorized to Lamine</b>
<b>Saflex FlySafe 3D PVB interlayer by Eastman</b>

This authorization expires on the date indicated above and may be renewed with proper submission and qualification of required specimens. Please consult your Eastman Sales Manager or Technical Service Representative for details.

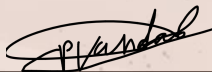
The approval numbers refer strictly to use of the product in the manufacture of laminated glass consisting of two (2) or more lites of glass and the appropriate thickness and layering of interlayers produced by Eastman to meet the desired performance criteria. The glass shall meet minimum requirements as specified in ASTM C1036, C1048 and C1172.

The exact configuration of the glass (glass thickness, color and type, interlayer thickness color and type) shall appear on a removable label on each piece of glass to be installed or tested. This label shall be removed upon direction of the authority having jurisdiction regarding the occupancy of the building or qualification testing as appropriate. Laminated glass shall also be marked or identified as defined for the intended application. For bird-friendly applications the label shall contain verbiage such as "Glaze this Side Out", to ensure orientation of the shiny silver sequins toward the environment with bird-flight.

Authorization is granted solely for laminates manufactured at the plant location indicated. Alternate manufacturing locations must submit product for their own evaluation. Certifications are not transferrable between manufacturing plants or fabrication plants other than the point of original manufacture. This authorization does NOT extend to the KeonSafe™ and KeonSafe™ Maximum brands. Separate authorization for qualified partners must be received from Eastman for participation in those programs. Eastman Chemical Company reserves the right to issue, renew or repeal Saflex FlySafe 3D authorization at any time.

Should you have any questions regarding this authorization, contact Eastman via e-mail at [glazing@eastman.com](mailto:glazing@eastman.com).

Approved by:



Digitally signed for security

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## Laminate Analysis Report

Saflex® FlySafe™ 3D  
Lamination Quality Report

Laminator: Vandaglas GmbH  
Plant Designation: Radeburg

Tracking Designation: FS-C23-352  
Laminates  
Manufactured: November 15, 2023  
Date of Report: November 30, 2023



## Laminate Analysis Report

Lamination Quality Check for Saflex FlySafe 3D PVB interlayer

**Laminator:** Vandaglas GmbH  
**Plant Designation:** Radeburg  
**Address:** Bahnhofstraße 30 | Radeburg | Germany

**Tracking Designation:** FS-C23-352  
**Laminates Manufactured:** November 15, 2023  
**Report Date:** November 30, 2023

**Expiration Date:** November 29, 2024

**Number of Laminates received:** 3  
**Interlayer Type:** Saflex™ RB42: FlySafe™ 3D

**Summary of Evaluation:** **Qualified**

### Summary Data:

Description	Requirements	Data for Submitted Set**
Minimum Interlayer thickness allowed (mm)*:	1.37	Minimum for set: <b>1.53</b>
Minimum adhesion via pummel allowed (PU)*:	4	Minimum for set: <b>4</b>
Maximum Interlayer moisture allowed (%):	0.55	Maximum for set: <b>0.42</b>
Boil test - 2 hours @ 100°C:	no bubble > 13 mm from edge of crack	<b>Pass</b>
Bake test - 16 hours @ 100°C:	no bubble > 13 mm from edge or crack	<b>Pass</b>
Progressive bake test max temperature (°C):	bubble formation > 13 mm from edge or crack	<b>130</b>

\* limits change based on interlayer type being evaluated.  
 \*\* Red font indicates deficiency

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### Detailed Saflex FlySafe 3D Laminate Submission Report

Laminator: Vandaglas GmbH  
 Plant Designation: Radeburg  
 Address: Bahnhofstraße 30 | Radeburg | Germany

Tracking Designation: FS-C23-352  
 Laminates Manufactured: November 15, 2023  
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The data for the laminates submitted are detailed below.

Laminate Configuration (Nominal Thicknesses) Glass 1(Labeled) Thickness (mm) - Color | Interlayer Thickness (mm) - Type | Glass 2 Thickness (mm) - Color  
 4 Clear | 1.52 Saflex™ RB42: FlySafe™ 3D | 4 Clear

Glass Orientation @ PVB interface		
Laminate 1	Air / Tin	
Laminate 2	Air / Tin	
Laminate 3	Air / Tin	
	N/A / N/A	

Glass thickness (mm)			
	Glass 1	Glass 2	Average Glass Thickness
Laminate 1	3.88	3.88	<b>3.88</b>
Laminate 2	3.88	3.89	
Laminate 3	3.89	3.88	
	N/A	N/A	

Interlayer Thickness			
	Section A	Section D	Average Interlayer Thickness
Laminate 1	1.53	1.53	<b>1.53</b>
Laminate 2	1.53	1.53	
Laminate 3	1.53	---	

Interlayer Moisture			
	Section A	Section D	Average Interlayer Moisture
Laminate 1	0.42	0.41	<b>0.42</b>
Laminate 2	0.42	0.41	
Laminate 3	0.42	---	

Laminate Adhesion (PU)			
	Section A IB/OB	Section D IB/OB	Average Pummel Adhesion
Laminate 1	6 / 4	6 / 5	<b>5.5</b>
Laminate 2	6 / 5	6 / 6	
Laminate 3	---	---	

High Temperature Evaluation		
	Boil - 2 hr. @ 100°C	Bake - 16 hr. @ 100°C
Laminate 1	Pass	<b>Pass</b>
Laminate 2	Pass	
Laminate 3	---	

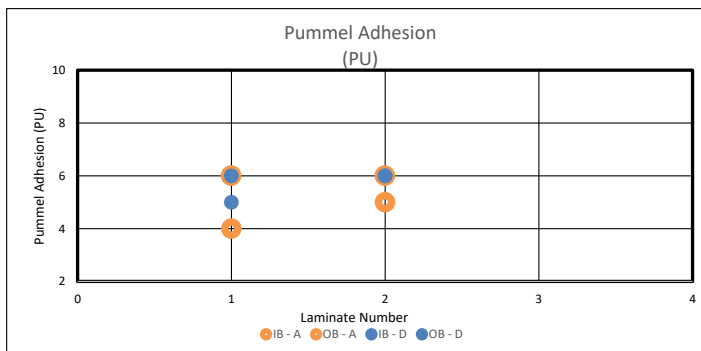
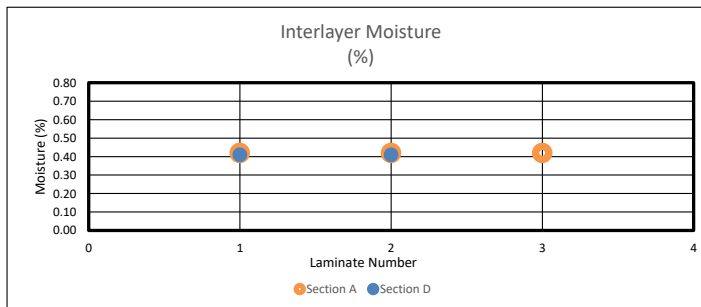
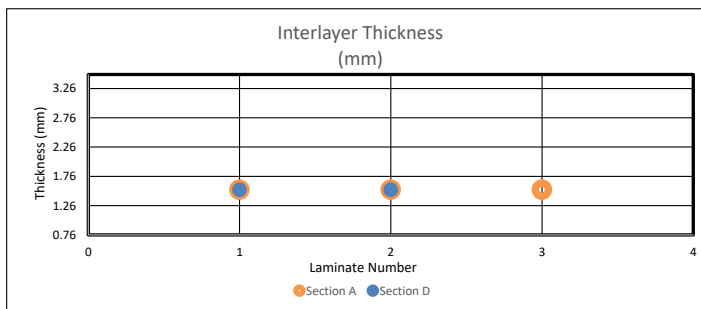
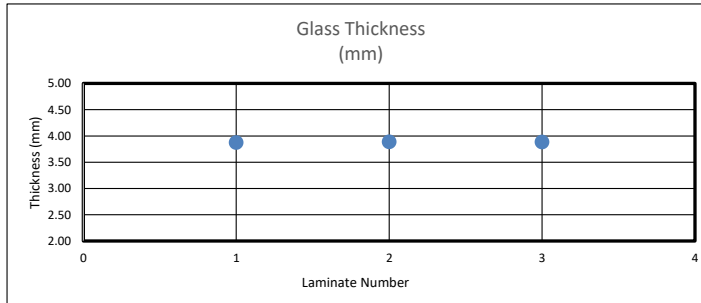
Bake - Progressive - Bubble Formation °C	
<b>130</b>	

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The following graphs indicate the spread of the data for the hurricane set as tested.

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