

# Evidence of performance

## Fire resistance of building elements

### Classification Report

N° 20-004106-PR01  
(KB-B02-UZ05-en-01)



Client  
LAMILUX Heinrich Strunz GmbH  
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95111 Rehau  
(Germany)

Prepared by the notified body  
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Number of notified body  
0757

Designation  
"LAMLIUX Glasdach Fire Resistance REI60"  
(as specified by client)

Classification  
Classification of fire resistance  
according to EN 13501-2:2016

Issue No. 1

#### Basis

EN 13501-2:2016  
EN 1363-1:2020  
EN 1365-2:2014

#### Instructions for use

This classification report defines the classification, which is assigned to the named element in accordance with the procedure of EN 13501-2.

This document does not represent type approval or certification of the product.

#### Validity

This test report does not allow any statement to be made on any further characteristics regarding performance and quality of the product presented.

#### Notes on publication

The ift Guidance Sheet "Conditions and Guidance for the Use of ift test reports" applies.

#### Contents

The classification report consists of 6 pages and may only be used or reproduced in its entirety.

- 1 Introduction
- 2 Details of the classified product
- 3 Test reports/reports on field of extended application and test results for verification of classification
- 4 Classification and field of application
- 5 Restrictions



## Roof construction with glazing

### Classification

### REI 60

ift Rosenheim  
09.12.2020



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## **1 Introduction**

This classification report for fire resistance defines the classification assigned to the building element "LAMILUX Glasdach Fire Resistance REI60" in conformity with the methods set out by EN 13501-2:2016.

This is the first classification of the component.

## **2 Details of the classified product**

### **2.1 General**

The function of the component "LAMILUX Glasdach Fire Resistance REI60" is to resist an one-sided fire exposure from the bottom side (mullion / transom side) according to the characteristic fire behavior under Clause 5 of EN 13501-2.

### **2.2 Description**

The component "LAMILUX Glasdach Fire Resistance REI60" is fully described in the test reports in support of classification listed in 3.1.



### 3 Test reports/extended application reports and test results in support of the classification

#### 3.1 Test Reports

The following test reports and test results were submitted for classification.

Name of testing body / NB n°	Name of client	Report ref. no	Test standards and date of issue /Standards of the extended application and date of issue
ift Rosenheim / 0757	LAMILUX Heinrich Strunz GmbH 95111 Rehau (Deutschland)	20-001793-PR01 (PB-B02-01-en-01)	EN 1365-2:2015

#### 3.2 Results

Test report number	Parameters	
20-001793-PR01 (PB-B02-01-en-01) Date: 29.10.2020	<b>Supporting construction</b>	Rigid standard supporting construction with low density: Aerated concrete
	<b>Exposed face</b>	Underside (mullion/transom side)
	<b>Load</b>	Point Load, 102 kg/m <sup>2</sup>
	<b>Criteria</b>	
	R - Load-bearing capacity	62 minutes
	E - Integrity	61 minutes
	I - Insulation	61 minutes

#### 3.3 Validation

The test mentioned in 3.1 is based on the currently valid test standards.



## 4 Classification and field of application

### 4.1 Reference for classification

This classification is based on EN 13501-2:2016, Clause 7.

### 4.2 Classification

The component "LAMILUX Glasdach Fire Resistance REI60" is classified according to the following combinations of performance parameters and classes, as applicable.

R	E	I	W		t	t	-	M	S	C	IncSlow	sn	ef	r	G	K
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**Classification of fire resistance: REI 60**

### 4.3 Field of application

#### 4.3.1 General

This classification is valid for the following practical application (end use):

for roof constructions and with glazing

#### 4.3.2 Field of direct application as per EN 1364-3

Product variations are defined according to the field of direct application of the test results for the classification mentioned under 4.2 as follows.

Reference to standard EN 1365-2	Permitted changes to the tested specimen
<b>A.5</b>	<b>Field of direct application of test results on constructions with glazing</b>
<b>A.5.1</b>	<p><b>General</b></p> <p>The results of the fire tests are directly applicable to similar constructions where one or more of the changes listed below are made and the construction continues to comply with the appropriate design code for its stiffness and stability. Other changes are not permitted.</p> <ul style="list-style-type: none"> <li>a) Decrease in the linear dimensions of panes</li> <li>b) If, for sloped constructions, both portrait and landscape aspect ratio rectangular panes have been tested, then the height of the landscape pane may be increased and/or the width of the portrait pane may be increased, subject to <ul style="list-style-type: none"> <li>– the area of the pane after increasing the linear dimensions shall be less</li> </ul> </li> </ul>

Reference to standard EN 1365-2	Permitted changes to the tested specimen
	<p>or equal to the average area of the largest tested landscape and portrait panes, i.e. <math>A \leq \frac{1}{2} * (A_{\text{portrait,max}} + A_{\text{landscape,max}})</math>,</p> <ul style="list-style-type: none"> <li>- all panes were tested in an identical framing and glazing system,</li> <li>- the largest tested width as well as the largest tested height is not exceeded.</li> </ul> <p>c) Decrease in the distance between mullions and/or transoms.</p> <p>d) Decrease in distance between fixing centres (e.g. fixing of the framing system to the supporting construction, and fixing of glass panes in the glazing system)</p> <p>e) Screwed-on glazing beads, if “clip-on” beads were incorporated in the test specimen</p> <p>f) Allowances for expansion if none were incorporated in the test specimen</p>
<b>A.5.2</b>	<p><b>Shapes of flat glass panes</b></p> <p>The internal angle at each corner of the glass panes incorporated in the test may vary by up to <math>\pm 15^\circ</math> of the angles tested, provided the number of corners will not change. The framing members are adapted accordingly.</p>
<b>A.5.3</b>	<p><b>Span</b></p> <p>Decrease of span length is allowed but no extension of span is permitted.</p>
<b>A.5.4</b>	<p><b>Extension of width in direction perpendicular to the span</b></p> <p>Test results cover rectangular glazed elements of greater width or replication (two or more glazed elements connected to each other) of the glazed element, provided:</p> <ul style="list-style-type: none"> <li>a) the framing system is identical to the one tested;</li> <li>b) the width of the specimen in the test was nominal 3 m or greater with: <ul style="list-style-type: none"> <li>- two edges (parallel to the span) unrestrained, or</li> <li>- one edge (parallel to the span) unrestrained and minimum two full length mullions next to the free edge;</li> </ul> </li> <li>c) the mullions within and/or the connection joints between glazed elements have been tested.</li> </ul> <p>In case of elements intended to be classified for EW, the following additional provisions apply:</p> <ul style="list-style-type: none"> <li>- the average temperature of the unexposed face of the glazed element as well as the average temperature of the unexposed face of the non-glazed area of the test specimen remained below 300 °C or</li> <li>- the heat radiation measured from the complete and fully glazed test element did not exceeded 13 kW/m<sup>2</sup>.</li> </ul> <p>NOTE The value of 13 kW/m<sup>2</sup> is determined such that the heat radiation from the construction with the extended dimensions is not exceeding 15 kW/m<sup>2</sup>.</p>

<b>A.5.5</b>	<b>Angle of inclination / pitched angle</b>
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Reference to standard EN 1365-2	Permitted changes to the tested specimen								
	<p>The applicability of a test specimen tested at one angle to other angles of installation is as given in Table A.1:</p> <p style="text-align: center;"><b>Table A.1 — Inclination angle</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th data-bbox="440 602 911 633">Tested at angle <math>\alpha</math> from the horizontal</th> <th data-bbox="916 602 1386 633">Valid for installation in practice</th> </tr> </thead> <tbody> <tr> <td data-bbox="440 640 911 667" style="text-align: center;">0°</td> <td data-bbox="916 640 1386 667" style="text-align: center;">up to 80°</td> </tr> <tr> <td data-bbox="440 674 911 701" style="text-align: center;">45°</td> <td data-bbox="916 674 1386 701" style="text-align: center;">&gt;15° up to 80°</td> </tr> <tr> <td data-bbox="440 707 911 734" style="text-align: center;">Any other angles</td> <td data-bbox="916 707 1386 734" style="text-align: center;">± 15° from the angle tested up to a limit of 80°</td> </tr> </tbody> </table>	Tested at angle $\alpha$ from the horizontal	Valid for installation in practice	0°	up to 80°	45°	>15° up to 80°	Any other angles	± 15° from the angle tested up to a limit of 80°
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Any other angles	± 15° from the angle tested up to a limit of 80°								
<b>A.5.6</b>	<b>Supporting constructions</b>								
<b>A.5.6.1</b>	<p><b>General</b></p> <p>For specimens tested in the test frame only (no supporting construction), the result is applicable to high density rigid building elements with at least the same fire resistance as the test specimen.</p>								
<b>A.5.6.2</b>	<p><b>Standard supporting constructions</b></p> <p>Test results obtained with low density rigid standard supporting constructions may be applied to high density supporting construction (in accordance with EN 1363-1) with at least the same fire resistance classification and an overall thickness equal to or greater than that of the element used in the test.</p>								
<b>A.5.6.3</b>	<p><b>Non-standard supporting construction</b></p> <p>The result of a test of fire resistant glazing tested in non-standard supporting constructions is only applicable to that construction.</p>								

## 5 Restrictions

This classification document does not represent type approval or certification of the product.

ift Rosenheim  
 09.12.2020