



## CENTRUM STAVEBNÍHO INŽENÝRSTVÍ a.s.

Zkušebna fyzikálních vlastností materiálů, konstrukcí a budov - Praha  
Zkušební laboratoř č. 1007.4 akreditovaná ČIA dle ČSN EN ISO/IEC 17025  
Pražská 16, 102 00 Praha 10 Hostivař

# TEST REPORT

## No. 19/440/P073



Job No.: Z-19/440/P022

No. of pages: 5

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**Name of test:**

Determination of flammability class of construction products

**Material/product/construction:**

Notice board SCXS B1, SCS B1, SCP B1, SCT, SCE, SCSL

**Sponsor:**

Jansen Display s.r.o.  
Přestanov 5  
403 17 Přestanov

**Manufacturer:**

Jansen Display s.r.o.  
Přestanov 5  
403 17 Přestanov

**Test specimens delivery date:**

28<sup>th</sup> June 2011

**Workplace:**

Fire technical laboratory

**Location:**

Pražská 16, Praha 10 – Hostivař

**Date of test:**

20<sup>th</sup> July 2011

**Date of issue:**

5<sup>th</sup> March 2019

Vit Slaboch  
technical manager of  
fire technical laboratory



Ing. Petr Školník  
head of laboratory

email.: slaboch@csias.cz  
phone: +420 281 017 451  
fax.: +420 271 751 122

email: azl@csias.cz  
phone.: +420 281 017 417  
web: www.csias.cz

## 1. Test assignment

The test has been done on the base of order issued on 6<sup>th</sup> April 2011.

## 2. Test methods

DIN 4102-1:1998 Fire behaviour of building materials and building components - Part 1: Building materials; concepts, requirements and tests. (Baustoffklasse B2)

## 3. Test specimens

The test specimens were delivered by manufacturer. Marking of the test specimens in laboratory: 15616.

Composition: Dimensions (1000 x 190 x 12) mm, total weight: 1,440 to 2,160 kg.

### Notice board SCXS B1:

- Front side - polycarbonate Lexan, thickness: 3 mm, colour: transparent, density 1200 kg/m<sup>3</sup>.
- Aluminium frame - material thickness 1 mm, width: 26 mm, colour: silver, density: cca 2700 kg/m<sup>3</sup>
- Backing board - painted steel plate, thickness 0,5 mm, colour: white, density: cca 7800 kg/m<sup>3</sup>.
- Plastic corners - ABS, dimensions: (15 x 20 x 26) mm, colour: grey, density: cca 1050 kg/m<sup>3</sup>.

### Notice board SCS B1:

- Front side - polycarbonate Lexan, thickness: 3 mm, colour: transparent, density 1200 kg/m<sup>3</sup>.
- Aluminium frame - material thickness 1 mm, width: 23 mm, colour: silver, density: cca 2700 kg/m<sup>3</sup>.
- Backing board - painted steel plate, thickness 0,5 mm, colour: white, density: cca 7800 kg/m<sup>3</sup>.

**Notice board SCP B1:** Front side is in the contact with backing board. Under the backing board is the cavity of depth 16 mm.

- Front side - polycarbonate Lexan, thickness: 0,8 mm, colour: transparent, density 1200 kg/m<sup>3</sup>.
- Aluminium frame - material thickness 1 mm, width: 23 mm, colour: silver, density: cca 2700 kg/m<sup>3</sup>.
- Backing board - painted steel plate, thickness 0,5 mm, colour: white, density: cca 7800 kg/m<sup>3</sup>.

### Notice board SCT:

- Front side - glass, thickness: 4 mm, colour: transparent, density 2500 kg/m<sup>3</sup>.
- Aluminium frame - minimum material thickness 1 mm, width: 45 mm, colour: silver, density: cca 2700 kg/m<sup>3</sup>
- Backing board - painted steel plate, thickness 0,5 mm, colour: white, density: cca 7800 kg/m<sup>3</sup>.

### Notice board SCE:

- Front side - glass, thickness: 4 mm, colour: transparent, density 2500 kg/m<sup>3</sup>.
- Aluminium frame - minimum material thickness 1 mm, width: 23 mm, colour: silver, density: cca 2700 kg/m<sup>3</sup>.
- Backing board - painted steel plate, thickness 0,5 mm, colour: white, density: cca 7800 kg/m<sup>3</sup>.
- Plastic corners - ABS, dimensions: (35 x 35 x 60) mm, colour: grey, density: cca 1050 kg/m<sup>3</sup>.

### Notice board SCSL:

- Front side - glass, thickness: 4 mm, colour: transparent, density 2500 kg/m<sup>3</sup>.
- Aluminium frame - minimum material thickness 1 mm, width: 23 mm, colour: silver, density: cca 2700 kg/m<sup>3</sup>.
- Backing board - painted steel plate, thickness 0,5 mm, colour: white, density: cca 7800 kg/m<sup>3</sup>.
- Plastic corners - ABS, dimensions: (35 x 35 x 60) mm, colour: grey, density: cca 1050 kg/m<sup>3</sup>.

## 4. Test equipment

1) Test device according to DIN 4102-1, class B2 (Reg. No. 746)

2) Yardstick (Reg. No. 148)

- 3) Digital stop watch (Reg. No. 4)
- 4) Metallic gauge 20 mm (Reg. No. 73)
- 5) Thermometer / relative humidity meter (Reg. No. 74)
- 6) Digital anemometer (Reg. No. 67)
- 7) AD converter (Reg. No. 45)
- 8) Weighing scale (Reg. No. 155)
- 9) Metallic gauge 10 mm (Reg. No. 77)

## 5. Test results and conclusion

Conditioning: 14 days according to DIN 50014-23/50-2

Testing conditions in laboratory: T = 23 °C

relative humidity RH = 29 %

<b>EDGE FLAME ATTACK - Front side: 3,0 mm Lexan, tested without aluminium frame, without substrate</b>					
<b>Sample No.:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Time to ignition [ s ]:</b>	3	2	2	3	3
<b>Reaching of mark [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Self-extinguishing time [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Afterflame time[ s ]:</b>	1	3	1	2	1
<b>Maximum height of flame [cm]:</b>	4	4	3	3	3
<b>Afterglow time [s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Burning time of flaming droplets[s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>SURFACE FLAME ATTACK - Front side: 3,0 mm Lexan, tested without aluminium frame, without substrate</b>					
<b>Sample No.:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Time to ignition [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Reaching of mark [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Self-extinguishing time [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Afterflame time[ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Maximum height of flame [cm]:</b>	0	0	0	0	0
<b>Afterglow time [s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Burning time of flaming droplets[s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>EDGE FLAME ATTACK - Front side: 0,8 mm Lexan, tested without aluminium frame, substrate: backing board - painted steel plate of thickness 0,5 mm</b>					
<b>Sample No.:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Time to ignition [ s ]:</b>	1	2	2	1	1
<b>Reaching of mark [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Self-extinguishing time [ s ]:</b>	18	16	(-)	(-)	(-)
<b>Afterflame time[ s ]:</b>	(-)	(-)	3	1	1
<b>Maximum height of flame [cm]:</b>	3	4	3	3	4
<b>Afterglow time [s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Burning time of flaming droplets[s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>SURFACE FLAME ATTACK - Front side: 0,8 mm Lexan, tested without aluminium frame, substrate: backing board - painted steel plate of thickness 0,5 mm</b>					
<b>Sample No.:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Time to ignition [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Reaching of mark [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Self-extinguishing time [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Afterflame time[ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Maximum height of flame [cm]:</b>	0	0	0	0	0
<b>Afterglow time [s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Burning time of flaming droplets[s]:</b>	(-)	(-)	(-)	(-)	(-)

<b>EDGE FLAME ATTACK - Back side: 0,5 mm painted steel plate, tested without aluminium frame</b>					
<b>Sample No.:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Time to ignition [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Reaching of mark [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Self-extinguishing time [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Afterflame time[ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Maximum height of flame [cm]:</b>	0	0	0	0	0
<b>Afterglow time [s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Burning time of flaming droplets[s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>SURFACE FLAME ATTACK - Back side: 0,5 mm painted steel plate, tested without aluminium frame</b>					
<b>Sample No.:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Time to ignition [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Reaching of mark [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Self-extinguishing time [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Afterflame time[ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Maximum height of flame [cm]:</b>	0	0	0	0	0
<b>Afterglow time [s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Burning time of flaming droplets[s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>EDGE FLAME ATTACK - Front side: glass 4,0 mm, tested without aluminium frame, without substrate</b>					
<b>Sample No.:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Time to ignition [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Reaching of mark [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Self-extinguishing time [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Afterflame time[ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Maximum height of flame [cm]:</b>	0	0	0	0	0
<b>Afterglow time [s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Burning time of flaming droplets[s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>SURFACE FLAME ATTACK - Front side: glass 4,0 mm, tested without aluminium frame, without substrate</b>					
<b>Sample No.:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Time to ignition [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Reaching of mark [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Self-extinguishing time [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Afterflame time[ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Maximum height of flame [cm]:</b>	0	0	0	0	0
<b>Afterglow time [s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Burning time of flaming droplets[s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>EDGE FLAME ATTACK - Front side: exposition of plastic corner</b>					
<b>Sample No.:</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Time to ignition [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Reaching of mark [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Self-extinguishing time [ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Afterflame time[ s ]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Maximum height of flame [cm]:</b>	0	0	0	0	0
<b>Afterglow time [s]:</b>	(-)	(-)	(-)	(-)	(-)
<b>Burning time of flaming droplets[s]:</b>	(-)	(-)	(-)	(-)	(-)

EDGE FLAME ATTACK - Back side: 0,5 mm painted steel plate, tested without aluminium frame					
Sample No.:	1	2	3	4	5
Time to ignition [ s ]:	(-)	(-)	(-)	(-)	(-)
Reaching of mark [ s ]:	(-)	(-)	(-)	(-)	(-)
Self-extinguishing time [ s ]:	(-)	(-)	(-)	(-)	(-)
Afterflame time[ s ]:	(-)	(-)	(-)	(-)	(-)
Maximum height of flame [cm]:	0	0	0	0	0
Afterglow time [s]:	(-)	(-)	(-)	(-)	(-)
Burning time of flaming droplets[s]:	(-)	(-)	(-)	(-)	(-)

EDGE FLAME ATTACK - Back side: 0,5 mm painted steel plate, tested without aluminium frame					
Sample No.:	1	2	3	4	5
Time to ignition [ s ]:	(-)	(-)	(-)	(-)	(-)
Reaching of mark [ s ]:	(-)	(-)	(-)	(-)	(-)
Self-extinguishing time [ s ]:	(-)	(-)	(-)	(-)	(-)
Afterflame time[ s ]:	(-)	(-)	(-)	(-)	(-)
Maximum height of flame [cm]:	0	0	0	0	0
Afterglow time [s]:	(-)	(-)	(-)	(-)	(-)
Burning time of flaming droplets[s]:	(-)	(-)	(-)	(-)	(-)

Annotation: (-) = data not determined

#### Conclusion:

The tested sample of *Notice board SCXS B1, SCS B1, SCP B1, SCT, SCE, SC SL* **does comply** with requirements given in the standard DIN 4102 – 1 for classification:

**DIN 4102-B2.**

#### 6. Measurement uncertainty

Expanded measurement uncertainty of length is  $\pm 1$  mm. Expanded measurement uncertainty of time is  $\pm 0,5$  s. Mentioned expanded uncertainties are obtained by multiplying the standard uncertainties by a coverage factor  $k=2$ , which corresponded to a level of confidence of 95 %. Standard uncertainties have been determined in accordance with document „EA 4/02“.

#### 7. Declaration

The test results relate to the behaviour of the test specimen of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product of use. The results of tests are concerned only with the subject of testing. The test report shall be reproduced in full only.

Measured by: Vít Slaboch



Test report prepared by: Vít Slaboch

Distribution of test reports:

Copy No. 1 – sponsor

Copy No. 2 – laboratory archive

List of appendixes: without appendixes

END OF TEST REPORT



**IKATES, s.r.o.**

Tolstého 186, 415 03 Teplice, Czech Republic  
Company ID : 25032836



CERTIFICATION BODY No.3065  
ACCREDITED BY CZECH ACCREDITATION INSTITUTE o.p.s.

ISSUES

# CERTIFICATE OF PRODUCT

No. CA-04/2015

**TO THE APPLICANT :** AGC Processing Teplice a. s., člen AGC Group  
Za drahou 462, 416 74 Teplice – Řetenice, Czech Republic  
Company ID : 25 01 22 66

**FOR A PRODUCT :** Thermally toughened soda lime silicate safety glass

**PRODUCER :** AGC Processing Teplice a. s., člen AGC Group  
Za drahou 462, 416 74 Teplice – Řetenice, Czech Republic  
plant Teplice, Za drahou 462, Teplice - Řetenice  
plant Kryry, Tovární ul. 439 81 Kryry, Czech Republic

**CONCLUSION :**

Above mentioned certification body confirms due this certificate **the conformity** of properties of the product samples with requirements of:

**ČSN EN 12150-1 (2001):** Glass in building – Thermally toughened soda lime silicate safety glass – Part 1: Definition and description, parameters: design, appearance, dimensions, thickness, squareness, flatness, breakage behaviour - fragmentation, mechanical strength, resistance to sudden temperature change

**Thermally toughened soda lime silicate safety glass** for indoor use is classified according to the standard:

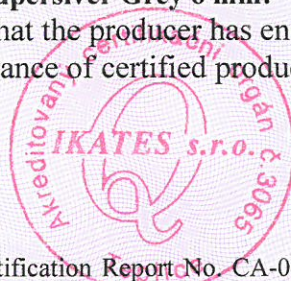
**ČSN EN 12600 (2003):** Glass in building – Pendulum test – Impact test method and classification for flat glass

<b>Thermally toughened soda lime silicate safety glass 3 mm:</b>	<b>EN 12600 1(C)2</b>
<b>Thermally toughened soda lime silicate safety glass 4 mm:</b>	<b>EN 12600 1(C)1</b>
<b>Thermally toughened soda lime silicate safety glass 8 mm:</b>	<b>EN 12600 1(C)1</b>
<b>Thermally toughened soda lime silicate safety glass 10 mm:</b>	<b>EN 12600 1(C)1</b>
<b>Thermally toughened soda lime silicate safety glass 12 mm:</b>	<b>EN 12600 1(C)1</b>
<b>Thermally toughened soda lime silicate safety glass 5 and 6 mm, enamelled matting imitation</b>	<b>EN 12600 2(C)3</b>
<b>Thermally toughened soda lime silicate safety glass 4 mm, enamelled:</b>	<b>EN 12600 1(C)3</b>
<b>Thermally toughened Stopsol Supersilver Clear 5; 6 and 10 mm:</b>	<b>EN 12600 1(C)1</b>
<b>Thermally toughened Stopsol Supersilver Grey 6 mm:</b>	<b>EN 12600 1(C)1</b>

Concurrently is submitted, that the producer has ensured assumptions for continual quality assurance of certified products in the plants.

Date of issue : 2015-10-29

Validity until : 2018-10-29



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Lubomír Hnilička  
manager of certification body

Integral part of this certificate is Certification Report No. CA-04/2015 from 29.10.2015. This certificate should be used and reproduced without changes and with all appendices only. The certificate was issued according to certification scheme No.5 in ČSN EN ISO/IEC 17067:2014