



Centrum stavebního inženýrství a.s.

Fire Technical Laboratory

AUTHORIZED
BODY No. 212

NOTIFIED
BODY No. 1390

CLASSIFICATION OF REACTION TO FIRE IN ACCORDANCE WITH ČSN EN 13501-1+A1:2010

Applicant: EMS-Hoesch Bausysteme GmbH
Sebenter Weg 41
23758 Oldenburg
Germany

Prepared by: Centrum stavebního inženýrství a.s.
Pražská 16
102 00 Praha 10
Czech Republic

Product name: *Self-supporting double skin metal faced
insulating panel KS 1200 Nordic Line
(NL) / EMS insulation panel EM, IPN3*

**Classification
report No.:** PK-15-076

Issue number: 1/2

Date of issue: 16th September 2015

This classification report consists of 4 pages and may only be used or reproduced in its entirety.

Address:
PRAŽSKÁ 16, 102 00 PRAHA 10, Czech Republic, E mail: csias@csias.cz, <http://www.csias.cz>
Reg. No. 45274860, VAT No. CZ45274860. The Company is registered in the Commercial Register administered by the Municipal Court of Prague (section B, inset 1595).
Fire Technical Laboratory, E-mail: ptl@csias.cz
Phone: +420 281 017 111, Fax: +420 281 017 455

1. DETAILS OF CLASSIFIED PRODUCT

Nature and end use application:

The product, *Self-supporting double skin metal faced insulating panel KS 1200 Nordic Line (NL) / EMS insulation panel EM, IPN3*, is defined as a type of sandwich panel according to EN 14509:2013-12.

Description:

The product *Self-supporting double skin metal faced insulating panel KS 1200 Nordic Line (NL) / EMS insulation panel EM, IPN3* is fully described in the test reports in support of the classification listed in clause 2. Manufacturer of the panel: EMS-Hoesch Bausysteme GmbH, Sebenter Weg 41, 23758 Oldenburg.

2. TEST REPORTS AND TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

Test reports

Name of laboratory	Name of sponsor	Test report ref. no.	Test method
CSI a.s., Fire technical laboratory	Kingspan a.s.	14/731/P452	ČSN EN ISO 11925-2
		15/603/P353	ČSN EN 13823
		15/604/P354	
PAVUS, a.s.	Kingspan a.s.	PK1-01-09-074-C-0	ČSN EN ISO 1716, ČSN EN 13501-1 +A1:2010

Measured values and test results:

Test method	Parameter	Number of test	Results	
			Continuous parameter mean (m)	Compliance parameters
ČSN EN ISO 1716	$PCS (MJ/m^2)^{(1)}$	3	0,70	(-)
	$PCS (MJ/m^2)^{(2)}$	3	1,49	(-)
ČSN EN ISO 11925-2	$F_s \leq 150 \text{ mm}^{(3)}$	6	yes	yes (B to D) no (d0)
	ignition of the filter paper ⁽³⁾	6	no	
	$F_s \leq 150 \text{ mm}^{(4)}$	6	yes	
	ignition of the filter paper ⁽⁴⁾	6	no	
ČSN EN 13823 Thickness D = 60 mm	$FIGRA_{0,2 \text{ MJ}} (W/s)$	3	52,8	$\leq 120 (B)$
	$LFS > \text{edge}$	3	no	no (B)
	$THR_{600 \text{ s}} (MJ)$	3	3,9	$\leq 7,5 (B)$
	$SMOGRA (m^2/s^2)$	3	3,5	$\leq 30 (s1)$
	$TSP_{600 \text{ s}} (m^2)$	3	42,7	$\leq 50 (s1)$
	flaming droplets / particles	3	no	no (d0)
ČSN EN 13823 Thickness D = 150 mm	$FIGRA_{0,2 \text{ MJ}} (W/s)$	3	55,4	$\leq 120 (B)$
	$LFS > \text{edge}$	3	no	no (B)
	$THR_{600 \text{ s}} (MJ)$	3	4,1	$\leq 7,5 (B)$
	$SMOGRA (m^2/s^2)$	3	1,5	$\leq 30 (s1)$
	$TSP_{600 \text{ s}} (m^2)$	3	36,5	$\leq 50 (s1)$
	flaming droplets / particles	3	no	no (d0)

(-): not applicable
 (1): heat of combustion of panel coating - interior side
 (2): heat of combustion of panel coating - exterior side
 (3): surface flame attack, exposition = 30 s
 (4): edge flame attack, exposition = 30 s

3. CLASSIFICATION AND DIRECT FIELD OF APPLICATION

Reference and direct field of application

This classification has been carried out in accordance with the clause 11.6, 11.9.2 and 11.10.1 of ČSN EN 13501-1+A1:2010.

Classification

The product *Self-supporting double skin metal faced insulating panel KS 1200 Nordic Line (NL) / EMS insulation panel EM, IPN3*, in relation to its reaction to fire behaviour is classified:

B

The additional classification in relation to smoke production is:

s1

The additional classification in relation to flaming droplets/particles is:

d0

The format of the reaction to fire classification for *Self-supporting double skin metal faced insulating panel KS 1200 Nordic Line (NL) / EMS insulation panel EM, IPN3* is:

Fire behaviour		Smoke production				Flaming droplets	
B	-	s	1	,	d	0	

Reaction to fire classification: B-s1, d0

Field of application:

This classification is also valid for the following product parameters:

- thickness of panel ≥ 60 mm
- thickness of metal plate (interior): 0,6 to 1,2 mm
- thickness of metal plate (exterior): 0,6 to 1,2 mm
- colour of panel coating: without limitation

- coating of panel: classification is valid for any coatings with PCS in the range 0 to 4 MJ/m²
- density of insulating core: 38 kg/m³ ± 15 %
- construction module (width of panel): without limitation

This classification is valid for the following end use conditions:

- orientation of panels: vertical, horizontal and ceiling applications of panels
- assembly with steel corner internal and external flashings of minimum thickness 0,5 mm
- fixing for metal flashings: valid for fixing spacing of 400 mm or less
- seals: without seals
- protection over cut edges: no flashings in ČSN EN ISO 11925-2 - valid for all end use applications

4. LIMITATIONS

Restrictions

This classification report is valid until 16th September 2020, provided that the technical specifications of the product will not be changed.

Warning

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

Prepared: 
.....
Jiří Socha



Reviewed: 
.....
Vít Slaboch
technical manager of laboratory