

**SAFETY, STRUCTURES AND FIRE DEPARTMENT** Reaction to fire

# REACTION TO FIRE CLASSIFICATION REPORT No. RA12-0108 ACCORDING TO THE EUROPEAN STANDARD NF EN 13501-1

Notification by the French Government to the European Commission under no 0679. Seule la version française fait foi. The french version is legally acceptable

Product standard

**NF EN 14509**: "Self-supporting double skin metal faced insulating panels -Factory made products - Specifications"

SB05LR et SB06LR (130 kg/m<sup>3</sup>)

**Owner:** 

PANELCO SAS Route de Chaveyriat 01540 VONNAS FRANCE

Commercial brand(s):

Manufacturing unit(s):

PANELCO SAS Route de Chaveyriat 01540 VONNAS FRANCE

Brief description:

**panels** (see detailed description in paragraph 2)

Self-supporting double skin metal faced insulating sandwiches

Date of issue: March 29<sup>th</sup>, 2012

The indicated classification does not prejudge the conformity of marketed materials with the samples submitted to the tests and under no circumstances, this document should not be considered as type approval or certification of the product in the sense of the L 115-27 article of the consumption's code and of the law dated June  $3^{rd}$ , 1994.

If this report is being issued by e-mail and/or on an electronic medium, only the hard copy of the report signed by CSTB shall prevail in the event of a dispute.

The reproduction of this classification report is only authorised in its integral form. It comprises 6 pages.

CENTRE SCIENTIFIQUE ET TECHNIQUE DU BATIMENT

SIÈGE SOCIAL > 84 AVENUE JEAN JAURÈS | CHAMPS-SUR-MARNE | 77447 MARNE-LA-VALLÉE CEDEX 2 TÉL. (33) 01 64 68 84 12 | FAX. (33) 01 64 68 84 79 | www.cstb.fr MARNE-LA-VALLÉE | PARIS | GRENOBLE | NANTES | SOPHIA-ANTIPOLIS



## 1. Introduction

This classification report defines the classification assigned to the above-mentioned product(s) in accordance with the procedures given in the NF EN 13501-1 standard.

### 2. Product description

Sandwich panel consisting of a rock wool core glued (3 possible polyurethane glues: one bicomponent glue and two mono-component glues) between two precoated steel sheet facings and closed on the 4 edges with an aluminium profile.

Mounting with a visible silicone-based sealant between panels on the fitting and on both sides of the corner flashing (only on surface). The joint between panels is filled with a butyl sealant.

Nominal thicknesses of the panels: 50 and 60 mm. Nominal density of the rock wool: 130 kg/m<sup>3</sup>. Nominal thickness of steel sheets: 0.6 mm. Finishing coat: polyester 25  $\mu$ m. Colour: white (finishing coat).



# **3.** Tests reports and tests results in support of this classification

| Name of<br>laboratory | Name of sponsor  | Test<br>identification | Test report<br>Nos.      | Test method |
|-----------------------|--|------------------------|--------------------------|-------------|
| CSTB                  | PANELCO SAS<br>Route de Chaveyriat<br>01540 VONNAS<br>FRANCE                   | ES541110581            | RA12-0108                | EN 13823    |
|                       | PANELCO SAS<br>Route de Chaveyriat<br>01540 VONNAS<br>FRANCE                   | ES541060047            | RA06-0511                | EN 13823    |
|                       |  | ES541050629            | RA06-0266                | EN ISO 1716 |
|                       | MYRIAD- CORUS COLORS<br>22 avenue Jean de Beco<br>59720 LOUVROIL<br>FRANCE     | ES541030758            | RA03-0513                | EN ISO 1716 |
| LNE                   | FLUMROC AG<br>8890 FLUMS<br>SWITZERLAND  | -                      | D041048<br>CEMAT/3       | EN ISO 1716 |
|                       | FORBO ADHESIVES FRANCE<br>SAS<br>Allée Robert Schuman<br>41013 BLOIS<br>FRANCE | -                      | L050653<br>Document DE/1 | EN ISO 1716 |



### 3.2 Tests results

|                | Product  | Number<br>of tests |   | Results                                  |                               |
|----------------|--|--------------------|---|--|-------------------------------|
| Test<br>method |  |                    | Parameters  | Continuous<br>parameters :<br>mean value | Compliance<br>parameters      |
| EN 13823       | SB05LR<br>(130 kg/m <sup>3</sup> )                               | 3                  | FIGRA <sub>0.2MJ</sub> (W/s)<br>FIGRA <sub>0.4MJ</sub> (W/s)<br>LFS<br>THR <sub>600s</sub> (MJ) | 7.3<br>7.0<br>-<br>0.8                   | -<br>-<br>Not<br>reached<br>- |
|                |  |                    | SMOGRA(m <sup>2</sup> /s <sup>2</sup> )<br>TSP <sub>600s</sub> (m <sup>2</sup> )                | 0.0<br>17.9                              | -                             |
|                |  |                    | Flaming droplets<br>or debris   | -  | None                          |
| EN ISO<br>1716 | Substantial component<br>(rock wool core)                        | -                  | PCS (MJ/kg)   | 0.9                                      | -                             |
|                | External non-substantial<br>component 1<br>(primer + finish)     | 3                  | PCS (MJ/m²)   | 0.5                                      | -                             |
|                | External non-substantial<br>component 2<br>(visible sealant)     | 3                  | PCS (MJ/m²)   | 0.8                                      | -                             |
|                | Internal non-substantial<br>component<br>(backcoat + glue 1)     | 3                  | PCS (MJ/m²)   | 2.8                                      | -                             |
|                | Internal non-substantial<br>component<br>(backcoat + glue 2)     | 3                  | PCS (MJ/m²)   | 3.9                                      | -                             |
|                | Internal non-substantial<br>component<br>(backcoat + glue 3)     | -                  | PCS (MJ/m²)   | 4.0                                      | -                             |
|                | Internal non-substantial<br>component 2<br>(non-visible sealant) | 3                  | PCS (MJ/m²)   | 1.5                                      | -                             |
|                | Whole product<br>(case with glue 1)                              | -                  | PCS (MJ/kg)   | 2.0                                      | -                             |
|                | Whole product<br>(case with glue 2)                              | -                  | PCS (MJ/kg)   | 2.4                                      | -                             |
|                | Whole product<br>(case with glue 3)                              | -                  | PCS (MJ/kg)   | 2.4                                      | -                             |

(-) means: not applicable



# 3.3 Additional test

| Test<br>method | Product                            | Number of<br>tests |   | Results                                  |                          |
|----------------|------------------------------------|--------------------|---|--|--------------------------|
|                |                                    |                    | Parameters  | Continuous<br>parameters :<br>mean value | Compliance<br>parameters |
| EN 13823       | SB06LR<br>(130 kg/m <sup>3</sup> ) | 1                  | FIGRA <sub>0.2MJ</sub> (W/s)<br>FIGRA <sub>0.4MJ</sub> (W/s)<br>LFS<br>THR <sub>600s</sub> (MJ) | 0.0<br>0.0<br>-<br>0.5                   | -<br>Not<br>reached<br>- |
|                |                                    |                    | SMOGRA(m <sup>2</sup> /s <sup>2</sup> )<br>TSP <sub>600s</sub> (m <sup>2</sup> )                | 0.0<br>21.1                              | -                        |
|                |                                    |                    | Flaming droplets<br>or debris   | -  | None                     |

(-) means: not applicable



### 4. Classification and direct field of application

### 4.1 Reference of the classification

This classification has been carried out in accordance with clauses 11.7, 11.9.2 and 11.10.1 of the NF EN 13501-1 standard.

#### 4.2 Classification

| Fire behaviour |   | Smoke production |   | Flaming droplets or debris |
|----------------|---|------------------|---|----------------------------|
| A2             | - | s1               | , | d0                         |

#### 4.3 Field of application

This classification is valid for the following product parameters:

- The product described in paragraph 2.
- A range of nominal thicknesses from  $50 \pm 7.5$  mm to  $60 \pm 9$  mm.
- A range of nominal thicknesses of steel sheet facing from 0.6 mm to 1.2 mm.
- A rock wool insulating material with a density of  $130 \pm 19.5 \text{ kg/m}^3$  and with a gross calorific value  $\leq 0.9 \text{ MJ/kg}$ .
- A nominal quantity of bi-component polyurethane glue of 200 g/m<sup>2</sup>.
- A maximum nominal quantity of mono-component polyurethane glue of  $120 \text{ g/m}^2$ .
- A 25 µm polyester finish.
- The tested seals and gaskets as described in paragraph 2.

This classification is valid for the following end use conditions:

- With a minimum air gap of 40 mm.

Champs-sur-Marne, March 29<sup>th</sup>, 2012

The Technician Responsible for the test

**Mohamed EL FAGUI** 

laboratory 4 -

The Head of Reaction to Fire

**Gildas CREACH** 

.....END OF THE CLASSIFICATION REPORT