

**Reaction to fire classification report no. 093007.1 – Re**  
**(English version of classification report no. 092304.1 – Re)**

Reaction to fire classification report of product  
„CEMBRIT METRO“  
produced in the plant Muijala, Finland

Sponsor: Cembrit Holding A/S  
Sohngaardsholmsvej 2  
DK – 9100 Aalborg

Order from: 16.06.2009 – Kurt V. Madsen

This classification report defines the classification assigned to product  
„CEMBRIT METRO“  
in accordance with the procedures given in EN 13501-1.

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

Der Klassifizierungsbericht darf nur ungekürzt veröffentlicht werden.  
Die auszugsweise Wiedergabe bedarf der schriftlichen Zustimmung der Prüfstelle.

## 1. Details of classified product

### 1.1 Nature and end use application

The product „CEMBRIT METRO“ is a fibre cement flat sheet coated on both sides, and is defined as being suitable for internal and external wall and ceiling finishes.

### 1.2 Description

The product „CEMBRIT METRO“ is fully described in the test reports provided in support of the classification listed in section 2.1.

According to the owner of this classification report, this product complies with the following European product specification:

EN 12467:2004-12 + A1:2005-08 + A2:2006-09 – Fibre cement flat sheets – product specification and test methods

## 2. Test reports and test results in support of this classification

### 2.1 Test reports

Name of laboratory	Name of sponsor	Test report no.	Test method
MPA BAU HANNOVER	Cembrit Holding A/S	091837 - Dra	EN 13823: 2002-02
MPA BAU HANNOVER	Cembrit Holding A/S	091835 - Re	EN ISO 1716: 2002-02
MPA BAU HANNOVER	Oy Minerit Ab	VTT-S-6232-06	EN ISO 1716: 2002-02

### 2.2 Gross heat of combustion – PCS values of the product

Product/Component	Weight per unit area	Gross heat of combustion PCS	
	g/m <sup>2</sup>	MJ/kg	MJ/m <sup>2</sup>
FSP Primer	4,5	33,52	0,15
FSP OP	30,0	18,51	0,56
Fibre cement flat sheet	13625	0,98	13,35
FSP BC	13,2	27,68	0,37
FSP Primer	4,5	33,52	0,15
Product	13677	1,07	14,58

### 2.3 Test results

			Results	
Test method	Parameter	Number of tests	Continuous parameter (mean)	Compliance parameter
EN ISO 1716	PCS (MJ/kg)	3	0,98	-
	- fibre cement sheet (a)	-	1,07	-
	- product (e)			
	PCS (MJ/m <sup>2</sup> )	3	0,71	-
	- front side (c)	3	0,52	-
	- back side (c)	3		
EN 13823	FIGRA <sub>0,2 MJ</sub> (W/s)	3	10	-
	LFS < edge	3	-	Y
	THR <sub>600s</sub> (MJ)	3	1,5	-
	SMOGRA (m <sup>2</sup> /s <sup>2</sup> )	3	3	-
	TSP <sub>600 s</sub> (m <sup>2</sup> )	3	28	-
	Flaming droplets / particles	3	-	N
(a) Substantial component of a non-homogeneous product				
(c) External non-substantial component of a non-homogeneous product				
(e) Product as a whole				

## 3. Classification and direct field of application

### 3.1 Reference

This classification has been carried out in accordance with clauses 11.7.1, 11.7.3 and 14.1 of EN 13501-1: 2007-02.

### 3.2 Classification

The product „CEMBRIT METRO“ in relation to its reaction to fire behaviour is classified: **A2**

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 construction products is:

Fire behaviour	Smoke production		Flaming droplets/particles	
A2	s	1	d	0

i.e.

**A2 – s1, d0**

### 3.3 Field of application

This classification is valid for the following end use conditions:

- Fixing: mechanical
- Subframe: wood, aluminium or steel profiles
- Joints: yes
  - vertical: width:  $\leq 8$  mm; closed by vertical subframe profiles; protection of wooden subframes with stripes of an EPDM tape.
  - horizontal: width:  $\leq 8$  mm; open
- Ventilated air space: yes; width  $\geq 25$  mm
- Insulation material: without or with mineral wool products of class A1 or A2-s1, d0 in accordance with EN 13501-1.

This classification is also valid for the following product parameters:

- Nominal thickness of the product:  $\geq 8$  mm
- Nominal density of the product:  $1550 \text{ kg/m}^3 - 1850 \text{ kg/m}^3$
- Coatings: yes
- Colour: black

## 4. Limitations

### 4.1 Warning

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

Hanover, 04.09.2009

Head of fire laboratory

(ORR Dipl.-Ing. Restorff)