



„MEŽA UN KOKSNES PRODUKTU PĒTNIECĪBAS UN ATTĪSTĪBAS INSTITŪTS” SIA

VAT No. LV 43603022749

Dobeles iela 41, Jelgava, LV-3001, Latvia

Phone +371 63010605 \* Fax +371 63010609 \* E-mail meka@e-koks.lv \* Web www.e-koks.lv



## Additional Classification Report Classification of reaction to fire performance in accordance with EN 13501-1:2007+A1:2009

*This report is additional to that issued as No. K17/2015 and dated 18.09.2015. and the original report should remain valid and is not replaced by additional report.*

Issue number: K17/A/2015

Date of issue: 17.06.2019.

**Sponsor:** JAPAN FACADES OÜ.

Address: Erika tn 2B-27, Harju maakond, 10416, Tallinn, Estonia.

Reg. No. 14492662.

**Manufacturer:** KMEW Co., Ltd 13 F Crystal Tower, 1-2-27 Shiromi, Chuo-ku, Osaka 540-6013, Japan.

**Prepared by:** SIA “Meža un koksnes produktu pētniecības un attīstības institūts” (*Forest and Wood Products Research and Development Institute Ltd*).

**Product name:** Fiber-reinforced lightweight cement board KMEW.

Laboratory involved in testing is accredited by the Latvian National Accreditation Bureau (LATAK) according to the standard LVS EN ISO/IEC 17025 under the terms of Latvian legislation with reg. No. T-316. Laboratory is a notified body with reg. No. NB 2040 under construction product regulation Nr. 305/2011.

*Classification report refers only to these test objects. This classification report may not be reproduced otherwise than in full text, excepted with the prior written approval of the Forest and Wood Products Research and Development Institute*

## 1. Introduction

This classification report defines the reaction to fire classification assigned to Fiber-reinforced lightweight cement board KMEW in accordance with the procedures given in EN 13501-1:2007+A1:2009.

## 2. Details of classified product

### 2.1. General

Fiber-reinforced lightweight cement board KMEW is defined as fibre cement flat sheets according standard EN 12467:2012.

### 2.2. Product description

- Product name: Fiber-reinforced lightweight cement board KMEW.
- Manufacturer: KMEW Co., Ltd 13 F Crystal Tower, 1-2-27 Shiromi, Chuo-ku, Osaka 540-6013, Japan.
- Product nominal dimensions: 14 x 455 x 3030 mm.
- Product composition: Cement 40%, Siliceous material (crystalline silica) 55%, Pulp 3.3-3.5%, Polypropylene 0.50%, Expanded polyvinyl chloride and methylcellulose 0.80-1,00%.
- Nominal density: min 1000 kg/m<sup>3</sup>.
- Top layer paint: acrylic paint consumption 200-220 g/m<sup>2</sup>.

## 3. Test reports and test results in support of classification

### 3.1. Test reports

Name of laboratory	Name of sponsor	Test report No.	Test method
SIA „Meža un koksnes produktu pētniecības un attīstības institūts” Testing Laboratory	JAPAN FACADES OÜ	1559-1/A/2015	EN 13823:2010
SIA „Meža un koksnes produktu pētniecības un attīstības institūts” Testing Laboratory	JAPAN FACADES OÜ	1559-2/A/2015	EN ISO 1716:2010

### 3.2. Test results

2.2. Test results

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean	Compliance parameters
EN 13823:2010	$FIGRA_{0,2MJ}$ (W/s)	3	16.1	Compliant
	$FIGRA_{0,4MJ}$ (W/s)		16.1	(-)
	$THR_{600s}$ (MJ)		0.9	Compliant
	LFS		<1000 mm	Compliant
	$SMOGRA$ (m <sup>2</sup> /s <sup>2</sup> )		2.0	Compliant
	$TSP_{600s}$ (m <sup>2</sup> )		28.1	Compliant
EN ISO 1716:2010	Gross heat of combustion $Q_{PCS}$	3	1.32 MJ/kg <sup>(a)</sup>	Compliant
		3	3.63 MJ/m <sup>2</sup> <sup>(b)</sup>	Compliant
			1.53 MJ/kg <sup>(c)</sup> *	Compliant

(-) not applicable

<sup>(a)</sup> Substantial component (Fiber-reinforced lightweight cement board 14 mm).

<sup>(b)</sup> Non-substantial component (acrylic paint).

<sup>(c)</sup> Product as whole.

\*  $Q_{PCS}$  for product as whole calculated for 14 mm board thickness.

## 4. Classification and field of application

### 4.1. Reference of classification

This classification has been carried out in accordance with clause 11 of EN 13501-1:2007+A1:2009.

### 4.2. Classification

Fiber-reinforced lightweight cement board KMEW 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 product excluding floorings and linings is:

Fire behaviour		Smoke production			Flaming droplets	
A2	-	s	1	,	d	0

**Reaction to fire classification: A2-s1,d0**



#### 4.3. Field of application

4.3.1 This classification is valid for the following end use applications:

Fiber-reinforced lightweight cement board KMEW primary is intended to use as decorative facades and cladding for buildings.

4.3.2. This classification is also valid for following product variations:

Thickness:	valid for thickness 14 mm and higher.
Density:	valid for product density variations within $\pm 150 \text{ kg/m}^3$ from tested.
Product composition:	valid only for product composition as tested.
Surface texture:	valid for different surface structures (smooth and embossed)

4.3.3. Classification valid for following substrates and air gaps:

Mounting:	valid for product mounting with ventilated or unventilated air gap between product and substrate as well as for mounting without air gaps. Valid for fixing on wood structures and also on other materials (metallic profiles, concrete). Structures of reaction to fire class D-s2-d0 and better.
Substrates:	product performance determined with A2-s1-d0 reaction to fire mineral wool insulation substrate. Classification is valid for product mounting with insulation material class A1 and A2-s1-d0 having 40 mm ventilated air gap and without insulation.
Joint:	Valid for horizontal and vertical joint openings $\leq 8 \text{ mm}$ and without openings.
Fixings:	valid for product fixing with any steel fixing (nails, screws, rivets).
Finishes:	valid also for product without any coating. Valid only for coating type as tested with consumption less than $220 \text{ g/m}^2$ for color tones which heat of combustion $Q_{PCS}$ (dry mater) is lower than $18 \text{ MJ/kg}$ .

#### 5. Limitations.

5.1. No restrictions on the duration of validity of this classification report as long as the product specifications remain unchanged.

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

5.3. The classification assigned to the product in this report is appropriate to a declaration of conformity by the manufacturer within the context of system 3 attestation of conformity and CE marking under the Construction Products Regulation.

The customer has made a declaration, which is held on file. This confirms that the product's design requires no specific processes, procedures or stages (e.g. no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence the manufacturer has concluded that system 3 attestation is appropriate.

The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested.



Prepared by

(signature)

E. Bukšāns

Reviewed by

(signature)

K.Būmanis