



„MEŽA UN KOKSNES PRODUKTU PĒTNIECĪBAS UN ATTĪSTĪBAS INSTITŪTS” SIA

VAT No. LV 43603022749

Dobeles iela 41, Jelgava, LV-3001, Latvia

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



Additional Test Report No.1559-2/A/2015

This report is additional to that issued as No. 1559-2/2015 and dated 18.09.2015. and the original report should remain valid and is not replaced by additional report.

Forest and Wood Products Research and Development Institute
Testing Laboratory

Customer: JAPAN FACADES OÜ.

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

Reg. No. 14492662.

Date of the order: 04.09.2015.

Testing was done according contract No. 150-09/15 MU.

Test samples received: 04.09.2015.

Description of product (According to customer's information)

- 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/m³.
- Top layer paint: acrylic paint consumption 200-220 g/m².

Sampling:

Specimens were manufactured at April of 2015 and sampling was done by INTOPEX TRANSIT OÜ Lao 18, 74114 Maardu, Estonia at 04.09.2015. Specimens were taken from warehouse of ready production and delivered to laboratory by customer. Liquid paint 100 g which were used for fiber-reinforced lightweight cement board top layer was delivered together with panels.

Application of building product (according to customer's information):

Product is intended to use as decorative facades for buildings. Product is identified by product standard EN 12467:2012.

Specimen preparation for testing:

Specimens were prepared for testing by laboratory at 04.09.2015. 100 g of fiber-reinforced lightweight cement board and 60 g (dry weight) of paint were prepared for testing. Painted top layer of board was removed during preparation of the specimen, to avoid coating influence on test results. Specimens were prepared for testing by grinding method.

Conditioning of specimens:

Specimens were conditioned according to standard EN 13238:2010.

Conditioning method: constant mass.

Temperature: $t = 23 \pm 1$ °C.

Relative humidity: RH = 50 ± 5 %.

Conditioning period: 7 days

Test standard: EN ISO 1716:2010.

Test date: 11.09.2015.

Test equipment: Oxygen bomb calorimeter PARR 6200. Energy equivalent (EE) used for calculations was 2389.68 cal/°C (10003.31 J/K) for bomb ID 1 and 2389.6102 cal/°C (10003.02 J/K) for bomb ID 2.

Test results:

Unburned residues were observed after the tests and complete combustion of organic content fixed. Deviation between repeated tests was within standard EN ISO 1716:2010 limits.

Test results summary

Product	Specimen identification No.	Total heat of combustion Q_{PCS} MJ/kg	Total heat of combustion Q_{PCS} MJ/m ²
Substantial component: Fiber-reinforced lightweight cement board (14 mm board mass/area - 15.24 kg/m ²)	1559-2-1	1.3900	21.18
	1559-2-2	1.2959	19.75
	1559-2-3	1.2594	19.19
	Average	1.32	20.04
	<i>Standard deviation</i>	0.067	1.027
Non- substantial component: Acrylic paint (coverage 200- 220 g/m ²)	1559-2-4	17.1859	3.44 – 3.78
	1559-2-5	17.163	3.43 – 3.78
	1559-2-6	17.4801	3.50 – 3.85
	Average	17.28	3.63 (3.46 – 3.80)
	<i>Standard deviation</i>	0.177	0.035 – 0.039
Product as whole (calculated to 14 mm product thickness)		1.53	23.67

Deviations from standard:

No.

According to EN ISO 1716:2010 test results relate to the behaviour of test specimens 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 in use.

Date of issue: 17.06.2019.



Head of Laboratory

K.Būmanis

(signature and name)

Tests carried out by

E.Bukšāns

(signature and name)

Test results refer only to these test objects. This test report may not be reproduced other than in full, excepted with the prior written approval of Testing Laboratory of the Forest and Wood Products Research and Development Institute