„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

LATAK-T-316

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

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Sponsor: CONCEPTUM SIA.

Address: Lubanas str. 78, Riga, LV-1073, Latvia.
Reg. No. 40103431021.

Owner of classification report: LLC "ProfHolod".

Manufacturer: LLC "ProfHolod".
Address: 6, Bolshoy Trehgorny pereulok, Moscow, Russia, 123022.
Reg. No. INN 7705671650

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

Product name: Metal roof panels with PIR insulating core PROFHOLOD.

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 No. 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 metal roof panels with PIR insulating core PROFHOLOD in accordance with the procedures given in EN 13501-1:2007+A1:2009.

2. Details of classified product

2.1. General

Product is defined as self-supporting, double skin metal faced insulating roof panels according to standard EN 14509:2013.

2.2. Product description

- Product: sandwich panels with PIR insulating core.
- Product name: roof panels PROFHOLOD.
- Manufacturer: LLC "ProfHolod".
- Materials used for manufacturing:
  - metal facings – cold hire profiled steel sheet with thickness 0.4 mm;
  - coating - polyester paint;
  - insulating core – polyisocyanurate.
  - facing profile geometry – profile depth 40 mm;
- Panel thickness tested: 40 mm and 100 mm.
- Colour: white (RAL 9003) and blue (RAL 5005).

3. Test reports and test results in support of classification

3.1. Test reports

Name of laboratory	Name of sponsor	Test reports	Test method
SIA „ Meža un koksnes produktu pētniecības un attīstības institūts" Testing Laboratory	CONCEPTUM SIA	1955-1/2016	EN 13823:2010+A1:2014
SIA „ Meža un koksnes produktu pētniecības un attīstības institūts" Testing Laboratory	CONCEPTUM SIA	1955-2/2016	EN ISO 11925-2:2010

3.2. Test results

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean	Compliance parameters
EN 13823:2010+A1:2014	$FIGRA_{0,2MJ}$(W/s)	4	141.4	(-)
	$FIGRA_{0,4MJ}$(W/s)		141.4	Compliant
	THR_{600s}(MJ)		8.1	Compliant
	LFS		<1000 mm	Compliant
	SMOGRA(m^2/s^2)		23.3	Compliant
	TSP_{600s}(m^2)		145.0	Compliant
	Flaming droplets <10s		no	Compliant
	Flaming droplets >10s		no	Compliant
EN ISO 11925-2:2010 Exposure time 30 s. Test duration 60 s.	Flame spread (Fs)	36	Less than 150 mm	Compliant
	Ignition of filter paper		no	(-)
	Flaming droplets/particles		no	(-)
(-) not applicable				

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

Metal roof panels with PIR insulating core PROFHOLOD in relation to its reaction to fire behaviour is classified:

C

The additional classification in relation to smoke production is:

s2

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	
C	-	s	2	,	d	0

Reaction to fire classification: C-s2-d0

4.3. Field of application

Product primary is intended to use as self-supporting insulating panels for building roofs.

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

Parameter	Factor	Validity of test
Metal facings	Metal	Valid only for steel sheet
	Thickness of metal facing	Valid for thickness 0.4 – 0.8 mm
	Profile geometry of facing	Valid for any profiles of greater than 5 mm profile depth
	Surface coating	Valid for all coatings with gross heat of combustion (PCS) in the range 0 to 4 MJ/m^2
	Colour of coating	Valid for all colours
Joint design	Product is tested with IV type joint	Valid for similar types of overlapping joint where the metal overlapping tongue on the internal face is ≥ 15 mm
Seals and gaskets	In mounting sealants were not used	Valid without additional sealants
PIR insulating core	Chemical composition	Valid for the same chemical system and blowing agent
Thickness of panel	Product is tested with 40 mm and 100 mm thickness with standard corner protection	Valid for thickness of 40 mm and thicker
Orientation of panels	Vertical or horizontal application of sandwich panels	Valid for horizontally and vertically installed panels for ceiling applications
Metal corner flashings		Valid for steel corner flashings ≥ 0.4 mm thickness and width ≥ 50 mm
Fixings for metal flashings	Standard spacing is 400 mm	Valid for fixing spacing of 400 mm or less
Other material corner flashings		Not valid with other material corner flashings
Protection parts of cut edges	Protection was not used	Valid for all application types

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.

Prepared by

E. Bukšāns

(signature)

Reviewed by

K.Būmanis

(signature)

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