

# FOREST AND WOOD PRODUCTS RESEARCH AND DEVELOPMENT INSTITUTE

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

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Owner of classification report: LLC "ProfHolod".

Manufacturer: LLC "ProfHolod".

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

Product name: Metal wall 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 wall 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 wall panels according to standard EN 14509:2013.

## 2.2. Product description

- Product: sandwich panels with PIR insulating core.
- · Product name: wall panels PROFHOLOD.
- Manufacturer: LLC "ProfHolod".
- Materials used for manufacturing:
  - o metal facings cold hire profiled steel sheet with thickness 0.4 mm;
  - o coating polyester paint;
  - o insulating core polyisocyanurate (PIR).
  - o facing profile geometry profiling less than 5 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	1954-1/2016	EN 13823:2010+A1:2014	
SIA " Meža un koksnes produktu pētniecības un attīstības institūts" Testing Laboratory	CONCEPTUM SIA	1954-2/2016	EN ISO 11925-2:2010	



#### 3.2. Test results

Test method	Parameter	Number	Results		
		of tests	Continuous parameter mean	Compliance parameters	
EN 13823:2010+A1:2014	FIGRA <sub>0,2MJ</sub> (W/s)	4	75.0	Compliant	
	FIGRA <sub>0,4MJ</sub> (W/s)		73.6	(-)	
	THR <sub>600s</sub> (MJ) LFS			Compliant Compliant	
	SMOGRA(m <sup>2</sup> /s <sup>2</sup> )		13.3	Compliant	
	$TSP_{600s}(m^2)$		89.1	Compliant	
	Flaming droplets <10s Flaming droplets >10s		no no	Compliant 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	o la sum	no	(-)	

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

В

The additional classification in relation to smoke production is:

**s**2

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
В	-	s	2	,	d	0

Reaction to fire classification: B-s2-d0



# 4.3. Field of application

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

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

Parameter	Factor	Validity of test		
	Metal	Valid only for steel sheet		
Metal facings	Thickness of metal facing	Valid for thickness 0.4 – 0.8 mm		
	Profile geometry of facing	Valid for flat profile and with profile depth up t 5 mm		
	Surface coating	Valid for all coatings with gross heat of combustion (PCS) in the range 0 to 4 MJ/m <sup>2</sup>		
	Colour of coating	Valid for all colours		
THE CHARLES THE TOTAL AND THE		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 as tested 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 walls 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.

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