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FIRE PROTECTION AND RESCUE DEPARTMENT UNDER THE MINISTRY OF INTERNAL AFFAIRS
FIRE RESEARCH CENTRE
PRODUCT RESEARCH DEPARTMENT

1. Introduction

This classification report defines the flammability class assigned to the thermal insulation façade cladding panel "GLORY" in accordance with the procedure specified in LST EN 13501-1:2007+Al:2010.

FLAMMABILITY CLASSIFICATION REPORT IN ACCORDANCE WITH LST EN 13501-1:2007+Al:2010

Client:	UAB "Koderus" Žirgų Str. 19, Antežerių vill., LT-14158, Vilnius district Phone: 8 605 69213
Prepared by:	Fire Research Centre Švitrigailos Str. 18, LT-03223, Vilnius
Product:	"Glory" thermal insulation façade cladding panel
Classification report No.:	20-11.2018.24
Issue No.:	Copy 1
Date of preparation:	05 December 2018
Grounds:	Work contract No. 57-33 (2GB/1KL) dated 26 June 2018. Application, reg. No. 55-47/18.

This classification report consists of three pages; the report shall be used or copied in full.

Fire Research Centre
Švitrigailos Str. 18,
LT-03223 Vilnius
Phone: (8 5) 249 1310
Fax: (8~5) 233 9878.
Email: gtc@vpgt.lt
www.gtcentras.lt

Product Research Department
Miško Str. 7, Valčiūnų vill.,
LT-13221 Vilnius district
Phone: (8 5) 249 1317,
Phone / fax (8 5) 249 1315

2. Details of the product to be classified

2.1 General Part

The product, "GLORY" is defined as a thermal insulation facade cladding panel.

2.2 Product description

According to the client's declaration, the "GLORY" panel consists of (from the outside):

- concrete finishing panel, thickness 8 mm - 10 mm, nominal density 2339 kg/m3, manufacturer UAB "Koderus", Lithuania; plate made of cement "AALBORG WHITE", manufacturer "Aalborg Portland" A/S, Danmark, sand 0/4, manufacturer UAB "Gasta", additive Sika "ViscoCrete", manufacturer SIA "Sika Baltic", Latvia, the panel is tinted with "SAKRET" mineral pigments, manufacturer SIA "SAKRET PLUS", Latvia;
- Polystyrene foam board "Šilputa EPS 80 NEO, nominal density 14 kg/m3, thickness 300 mm, manufacturer UAB "Šilputa" Lithuania;
- Perforated steel tape "KVA", manufacturer „Joseph Dresselhaus Befestigunstechnik" GmbH&Co, Germany, built into a polystyrene foam board, used for additional fastening of "GLORY" panels to the wall.

The GLORY panel is attached to the base with foam "Penosil polystyrol FIX FOAM 877", manufacturer
"Krimelte", Estonia, thickness 5 mm - 8 mm or cement adhesive "Sakret BK", manufacturer UAB "SAKRET LT", Lithuania, thickness 10 mm - 15 mm. The side surfaces of the thermal insulation layer are bonded together with "Penosil polystyrene FIX FOAM 877" foam, manufactured by "Krimelte", Estonia, thickness 5 mm – 8 mm. The gaps between the panels (5 mm - 8 mm) shall be filled to a depth of 5 mm - 6 mm with either "Bostik PU 2637" sealant, manufactured by "BOSTIK", Sweden, or with a mixture of talc (40 %) and a special-purpose coating "BYK2 (60 %)", manufactured by 000 "Kompozit", Ukraine.

For the tests according to LST EN 13823:2010+Al:2015, "GLORY" was installed on a standard (according to LST EN 13238:2010) plasterboard base. Two variants of the test specimens were tested: the first one using "Sakret BK" cementitious adhesive and "Bostik PU 2637" sealant for the panel installation, and the second one using "Penosil polystyrene FIX FOAM 877" foam and talc/ "BYK2" mixture for the panel installation.

3. Reports and results to justify this classification

3.1 Reports

Name of the laboratory	Client	Report No.	Test method and rules of application
Fire Protection and Rescue Department under the Ministry of Internal Affairs Fire Research Centre Product Research Department	UAB "Koderus"	20-5.2018.5	LST EN ISO 11925-2:2010
Fire Protection and Rescue Department under the Ministry of Internal Affairs Fire Research Centre Product Research Department	UAB "Koderus"	20-90.2018.3	LST EN 13823:2010+Al:2015

3.2 Results

Test method	Parameter	Number of tests	Results	
			Average of the continuous parameter	Conformity parameter
LST EN ISO 11925-2 surface exposure to flame 30 s exposure	$F_s \leq$ 150 mm ot more than 60 s	6	Yes	Complies
	Ignition of filter paper		No	Complies
LST EN ISO 11925-2 the exposure of the lower edge of the test specimen rotated through 90° about its vertical axis to the flame 30 s exposure	$F_s \leq$ 150 mm ot more than 60 s	14	Yes	Complies
	Ignition of filter paper		No	Complies
LSTEN 13823	FIGRA0.2MJ≤ 120 W/s LFS < hot $THR_{600s} \leq$ 7.5MJ	4*	0.0 Yes 0.4	Complies
	SMOGRA ≤ 30 m^2/s^2 TSP 600s ≤ 50 m^2		10.8	Complies
	No flaming droplets or particles within 600 s		Yes	Complies

* - average calculated using the results of 3 tests where the "GLORY" panel was installed with "Penosil Polystyrol FIX FOAM 877" on a standard base and the gaps between the panels were filled with a mixture of talc and "BYK2".

4. Classification and field of application

4.1 Classification ref.

This classification is carried out in accordance with Chapter 11 of LST EN 13501-1:2007+Al:2010.

4.2 Classification

The product, thermal insulation façade cladding panel "GLORY", is classified as follows on the grounds of flammability:

B

Additional classifications for smoke generation are:

sl

An additional classification for flaming droplets or particles is:

dO

The form of classification of construction products other than floor formwork and linear pipe insulation products is as follows:

Fire character		**Smoke generation**		**Flaming droplets**
B	- S	1	. d	1

i.e., **B-sl,dO**

Flammability class B-sl,dO

4.3 Field of Application

This classification shall apply subject to the conditions specified in paragraph 2.2 and in addition to the following conditions of practical use:

- the product shall be mounted without an air gap on a base with a density of 450 kg/m3 and a thickness of 12 mm, with a flammability class not lower than A2-en,d0 according to LST EN 13501-1;
- the product can be installed with both vertical and horizontal joints. This classification applies to the product parameters specified in 2.2 and additionally to the following product parameters:
- The thickness of the polystyrene foam board "Šilputa EPS 80 NEO Neaporas" is not limited if the
- "GLORY" panel is bonded to the base with the cementitious adhesive "Sakret BK";
- The thickness of the polystyrene foam board "Šilputa EPS 80 NEO Neaporas" board 180 mm, if the
- "GLORY" panel is bonded to the base with the foam "Penosil polystyrol FIX FOAM 877"

5. Limitation

5.1 Prohibitions

The classification of this product is valid until 5 December 2021.

5.2 Warning

This document is not a type-approval or a product certificate.

Classification report developed by:

Senior Specialist
Aurelija Kindurienė
/signature/

Classification report approved by:

Senior Specialist
Andrejus Jefimovas
/signature/ stamp
here://