



TEST REPORT

PRODUCT TYPE DETERMINATION

PTD-18.2 / 21.08.2018

The tests are carried out in compliance with the *Regulation(EU) № 305/2011 (CPR) of the European Parliament and of the Council of European Communities.*

Product: Facade thermal panel with polyurethane foam BELAN

Producer: Belan Plus Ltd
1 Dostoevskovogo Str., Homel, Belarus Republic

Applicant: Belan Plus Ltd
1 Dostoevskovogo Str., Homel, Belarus Republic

Document for assignment: Contract No 14/2018

AVCP System: System "3" according to EN 13165:2012+A2:2016

Test samples: The presented sample consists of 5 pieces Facade thermal panel with polyurethane foam BELAN with sizes 656x873x53 mm, taken and provided by the Applicant. Details of the product are given in an Application.

Test period: From 15.06.2018 to 21.08.2018

Assessment performance: The submitted sample Facade thermal panel with polyurethane foam BELAN meets the requirements of the EN 13165:2012+A2:2016

Head of Test Laboratory
Res. Ass. Eng. Tsvetana Gyurova

General Manager of NISI
Eng. Blagovest Krumov



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Testing data:

No	Characteristic	Unit of measurement	Test method	Test result	Requirement according to EN 13165:2012+ A2:2016
1	2	3	4	5	6
1.	Coefficient of thermal conductivity of polyurethane foam - before heat ageing - after heat ageing	W/m.K	EN 12667: 2004	0,0258 0,0241 <u>0,0253</u> $\lambda = 0,025$ 0,0316 0,0299 <u>0,0311</u> $\lambda = 0,031$	Declared value by the manufacturer
2.	Thermal resistance of polyurethane foam - before heat ageing - after heat ageing	m ² .K/W	EN ISO 6946:2008	1,358 1,452 <u>1,383</u> $R = 1,40$ 1,107 1,170 <u>1,125</u> $R = 1,13$	Declared value by the manufacturer
3.	Thermal transmittance coefficient of Facade thermal panel with polyurethane foam BELAN	W/m ² .K	EN ISO 12567-1:2010	U = 0,9	Declared value by the manufacturer
4.	Thermal resistance of Facade thermal panel with polyurethane foam BELAN	m ² .K/W	EN ISO 6946:2008	R = 1,1	Declared value by the manufacturer



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No	Characteristic	Unit of measurement	Test method	Test result	Requirement according to EN 13165:2012+ A2:2016
1	2	3	4	5	6
5.	Long term water absorption of polyurethane foam - by partial immersion method - by total immersion method	kg/m ²	EN 12087: 2013	W_{lp} = 0,35 W_{lt} = 0,72	Declared value by the manufacturer

Technical documentation:

EN 12667:2004 "Thermal performance of building materials and products - Determination of thermal resistance by means of guarded hot plate and heat flow meter methods - Products of high and medium thermal resistance"

EN ISO 6946:2008 "Building components and building elements - Thermal resistance and thermal transmittance - Calculation method"

EN ISO 12567-1:2010 "Thermal performance of windows and doors - Determination of thermal transmittance by the hot-box method - Part 1: Complete windows and doors"

EN 12087:2013 "Thermal insulating products for building applications - Determination of long term water absorption by immersion"

Tests are carried out by
 Eng. Milena Mideva

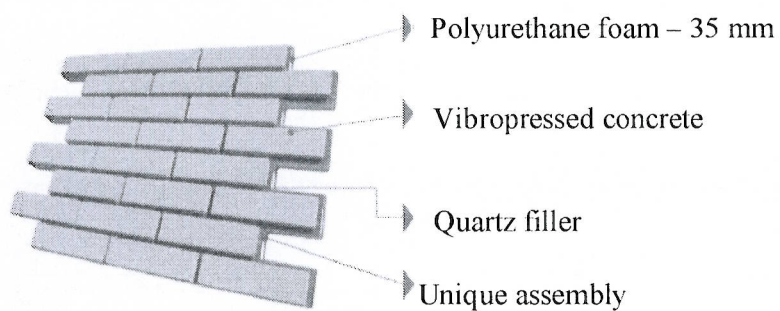


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Application

Composition of thermal panel



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