Laboratory for Fire Safety

Classification of reaction to fire performance in accordance with EN 13501-1:2018 of Bostik H770 Paneltack Interior adhesive bonding system for Trespa Toplab Vertical FR panels

Classification report

Report number Y 2522-6E-RA-001 d.d. 26 May 2023

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Classification report

Test Sponsor	Bostik Benelux B.V. Denariusstraat 11 4903 RC OOSTERHOUT NB The Netherlands
Issued by	Peutz bv Lindenlaan 41 6584 AC Molenhoek PO Box 66 6585 ZH Mook The Netherlands
Notified Body no.	NB 2264
Product name	**Bostik H770 Paneltack Interior adhesive bonding system for Trespa Toplab Vertical FR panels**
Report number	Y 2522-6E-RA-001
Date	26 May 2023
Reference	HL/NvD//Y 2522-6E-RA-001
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1 Introduction

On behalf of Bostik Benelux B.V. an investigation was performed with respect to the reaction to fire properties of Bostik H770 Paneltack Interior adhesive bonding system for Trespa Toplab Vertical FR panels.

This classification report defines the reaction to fire classification of the product in accordance with the procedures described in EN 13501-1: 2018.

TESTEN
RvA L 505

For this type of measurements the Laboratory for Fire safety has been accredited by the Dutch "Raad voor Accreditatie" (RvA).

The RvA is member of EA MLA (**EA MLA**: **E**uropean **A**ccreditation Organisation **M**ulti**L**ateral **A**greement: http://www.european-accreditation.org).

EA: "Certificates and reports issued by bodies accredited by MLA and MRA members are considered to have the same degree of credibility, and are accepted in MLA and MRA countries."

2 Product description

2.1 General

The information in this report is based on information provided by the client.

The product investigated is Bostik H770 Paneltack Interior, an adhesive bonding system for Trespa Toplab Vertical FR panels, hereinafter also called 'the product'. The intended application is adhesive for the fixing of HPL panels for internal wall and ceiling finishes.

2.2 Harmonised product standard

According to the client there was no harmonised European product for the Paneltack adhesive bonding system at the time the tests were conducted and this report was drawn up. Because the investigation concerns the reaction to fire properties of the Paneltack adhesive bonding system in combination with High-pressure decorative laminates (HPL), the reaction to fire investigation is based on 'mounting and fixing provisions' from the product standard for HPL composite panels for wall and ceiling finishes, EN 438-7:2005.

2.3 Product identification

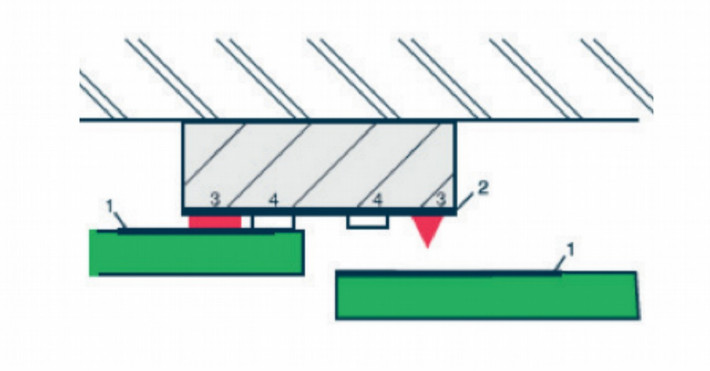
The most important parameters for identifying the product are summarized in Tables 2.1 and 2.2 below.

t2.1 General information of product to be tested

Bostik Paneltack H770 Interior adhesive bonding system	
Date of sample arrival:	05/01/2023
Name of the manufacturer:	Bostik Benelux B.V.
Sampling done by:	DGL Hr. Basel
Sampling date:	05/01/2023
Identification of samples:	Table t2.2
Trespa Toplab Vertical FR panels	
Date of sample arrival:	16/12/2022
Name of the manufacturer:	Trespa International B.V., Wetering 20, 6002 SM Weert, The Netherlands
Sampling done by:	Mrs. H. Meurkens
Sampling date:	11/12/2022
Identification of samples:	Table t2.2

t2.2 Additional information of product to be tested

Product	**Bostik H770 Paneltack Interior adhesive bonding system for HPL Panels**
Type product	Adhesive bonding system for the fixing of HPL panels for interior application
Description	The adhesive bonding system consists of: – 1: Pretreatment for cladding panel: Bostik Primer Paneltack – 2: Pretreatment for support construction: Bostik Primer SX Black – 3: Bostik H770 Paneltack Interior – 4: Bostik Foamtape – 5: HPL panel



Bostik H770 Paneltack	
Type product	Bostik H770 Paneltack Interior is a moisture-curing, highly elastic cladding panel adhesive, specially developed for the bonding of HPL cladding panels in an indoor application.
Application	Applied on each vertical profile of the subframe as one uninterrupted bead using the V-shaped nozzle to create a triangular adhesive bead with a width and height of 9 mm.
Manufacturer	Bostik Benelux B.V., The Netherlands
Product / EAN code	8711595224338
Batch no.	2681165
Colour	White
Density	1.5 g/ml
Specifications	Cartridge 290 ml
Use of flame retardants	No

Bostik Foamtape	
Type product	FoamTape is part of the complete PanelTack system and serves as a spacer for the adhesive bead, to ensure the proper adhesive thickness between the panel and the support structure. FoamTape provides an initial fixation of the panel or substrate until the Paneltack adhesive has cured, while ensuring a strong, lasting bond.
Application	Applied on each vertical profile of the subframe
Manufacturer	Bostik Benelux B.V., The Netherlands
Product / EAN code	30182771
Batch no.	232204-10
Colour	Black
Weight	Approx. 60 kg/m^3
Specifications	Double-sided adhesive FoamTape 12 × 3 mm
Use of flame retardants	No

Bostik Primer SX Black	
Type product	Primer SX Black is a black-coloured liquid primer for Pre-treatment and improved adhesion of smooth-planed wooden support structures to which cladding panels will be bonded
Application	Applied on each vertical profile of the subframe (using a roller) prior to bonding
Manufacturer	Bostik Benelux B.V., The Netherlands
Product / EAN code	30023350
Batch no.	DB22810812
Colour	Black
Weight	1.03 g/ml
Use of flame retardants	No

Bostik Primer Paneltack	
Type product	Primer for pretreatment of the HPL panels. The Primer is a transparent liquid washprimer suitable for use with various panels and wall cladding materials, including HPL, metals, and other materials.
Application	Applied on the back of the cladding panel to clean, degrease and pre-treat the bonding side of the HPL panel prior to bonding the panel by positioning and pressing the panels onto the foamtape and Paneltack adhesive
Manufacturer	Bostik Benelux B.V., The Netherlands
Product / EAN code	30022111
Batch no.	DB22A92473
Colour	Transparent
Weight	0.76 g/ml
Use of flame retardants	No

Trespa Toplab Vertical FR					
Type product	Trespa Toplab Vertical FR is a range of HPL panels for vertical applications in functional and laboratory environments				
Manufacturer	Trespa International B.V.				
Colour			Product / EAN code	Batch no.	
– Red	K12.1.8	/ Satin passion red	8713882552780	72212427- 16/17/18	9002759
– Black	K90.0.0	/ Satin black	8713882482049	72212427- 19/20/21	9002761
– White	K05.0.0	/ Satin pure white	8713882482056	72212427- 13/14/15	9002760
Surface weight	8.7 kg/m^2				
Density	1350 kg/m^3				
Specifications	6 mm thickness				
Use of flame retardants	Yes				

Peutz was not involved in the selection of the test specimen (or of its materials). The laboratory cannot make any declaration about the representativeness of the provided specimen and the samples made available. The values mentioned are the nominal values as given by the client, unless otherwise stated (MV, measured value).

3 Reports and results in support of this classification

3.1 Reports

The client has confirmed that the reports provided (see Table 3.1) may be used for this classification.

t3.1 Reports in support of classification

Name of laboratory	Name of client	Number and date of report	Test method Field of application rules
Peutz bv, NB 2264	Bostik Benelux B.V.	Y 2522-4E-RA-001; 26/05/2023	EN 13823:2020
Peutz bv, NB 2264	Bostik Benelux B.V.	Y 2522-5E-RA-001; 25/05/2023	EN-ISO 11925-2:2020

3.2 Results

The results obtained are summarised in Tables 3.2 and 3.3. The test results show the worst case as found in the test programme performed and reported according to table 3.1 above. The EGOLF RECOMMENDATION 003-2016 'Selection of colours for covering a range', has been applied in the process of selecting suitable products for testing. The tests have been carried out on the product in colour red, black and white and the results of the decisive colour is listed in Tables 3.2 and 3.3 and used for classification.

t3.2 Summary of test results EN-ISO 11925-2

Flame application time 30s			Results	
	Parameter	Number of tests	Continuous parameters (average)	Compliance parameters
Surface exposure	Fs ≤ 150 mm	6	-	Y
	Ignition of filter paper		-	N
Edge exposure	Fs ≤ 150 mm	6	-	Y
	Ignition of filter paper		-	N
Layer exposure	Fs ≤ 150 mm	6	-	Y
	Ignition of filter paper		-	N

The classification is based on the tested samples in red according to EN 13501-1 H7 (number of tests for classification).

t3.3 Summary of test results EN 13823

Parameter		Number of tests	Results	
			Continuous parameters (average)	Compliance parameters
$FIGRA_{0,2MJ}$	[W/s]		90	-
$FIGRA_{0,4MJ}$	[W/s]		90	-
THR_{600s}	[MJ]	3	4.5	-
SMOGRA	[m^2/s^2]		6	-
TSP_{600s}	[m^2]		34	-
LFS reaching edge			-	N
Flaming droplets/particles	– FDP ≤ 10 s		-	N
	– FDP > 10 s		-	N

The classification is based on the tested samples in red according to EN 13501-1 H7 (number of tests for classification).

3.3 Classification criteria

The classification to be obtained is based on the classification criteria given in EN 13501-1. In Tables 3.4 and 3.5 these criteria are summarised.

t3.4 Classification criteria

Test	Parameter		Class		
	Continuous (average) or compliance		B	C	D
EN-ISO 11925-2	Flame spread ≤ 150 mm		Y	Y	Y
EN 13823	$FIGRA_{0,2MJ}$	[W/s]	≤ 120	-	-
	$FIGRA_{0,4MJ}$	[W/s]	-	≤ 250	≤ 750
	THR_{600s}	[MJ]	≤ 7,5	≤ 15	-
	LFS reaching edge		N	N	-

t3.5 Criteria additional classifications

Test	Parameter		Class			Class		
	Continuous (average) or compliance		s1	s2	s3	d0	d1	d2
EN-ISO 11925-2	Ignition of filter paper		-	-	-	N	N	Y
	Note: ignition of filter paper leads to classification d2, irrespective of the results for FDP in EN 13823							
EN 13823	SMOGRA	[m^2/s^2]	≤ 30	≤ 180	not s1	-	-	-
	TSP_{600s}	[m^2]	≤ 50	≤ 200	or s2	-	-	-
EN 13823	Flaming droplets/particles (FDP) within 600 s							
	– FDP ≤ 10 s		-	-	-	N	Y	-
	– FDP > 10 s		-	-	-	N	N	Not d0 or d1

4 Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with EN 13501-1:2018.

4.2 Classification

The product, Bostik H770 Paneltack Interior adhesive bonding system for Trespa Toplab Vertical FR panels, has been classified to its reaction to fire behaviour as: B.
The additional classification for the smoke production is: s1, the additional classification for flaming droplets is: d0.

Reaction to fire classification: B-s1, d0

4.3 Field of application

The classification is only valid for use of the product Bostik H770 Paneltack Interior paneltack in combination with Trespa Toplab panels, as described in section 2 of this report.

The classification is only valid for the following product parameters:

- Composition: Composition of the product as tested and described in section 2 of this report. Variations in the type of adhesive and primer, type of cladding, or composition of materials are not allowed.
- Cladding: Trespa Toplab panels in all colours with a thickness of 6 mm or greater
- Applied adhesive system Bostik H770 Paneltack Interior paneltack adhesive system

The classification is valid for the following end use applications:

- Mounting and fixing: Panels mounted to the wooden frame only with the Bostik H770 Paneltack Interior bonding system.
  Fixation with screws is not a part of the field of application.
  Valid for all types of supporting frames (particularly wood and aluminium) against non-combustible walls (A2-s1,d0 or better, e.g concrete, masonry walls, excluding gypsum plasterboard), with a thickness of at least 9 mm and a density of at least 652,5 kg/m^3.
- Insulation: The result is valid with the standard insulation specified in EN 438-7 B.2 and also valid for the same type of panel used without insulation.
  Insulation: 50 mm mineral wool with a density 30-70 kg/m^3 according to EN 13162.
  Organic content of the insulation $\leq$ 5 %.
  Melting point of the insulation > 1000 °C.
- Joints: Horizontal joints are open and vertical joints are closed by the subframe.
  The result is also valid for the same type of panel used in applications with open horizontal joint $\leq$ 8 mm.
  The result is also valid for the same type of panel used in applications without joints.
  The result is also valid for the same type of panel used in applications with any type of closed horizontal joint (e.g. using profiles or tongues).
- Air gap: Open air gaps.
- Other: The product is to be used as wall and ceiling finish for internal applications.

5 Limitations

There are no limits in time on the validity of this classification document.

This classification document does not represent type approval or certification of the product.

Mook,

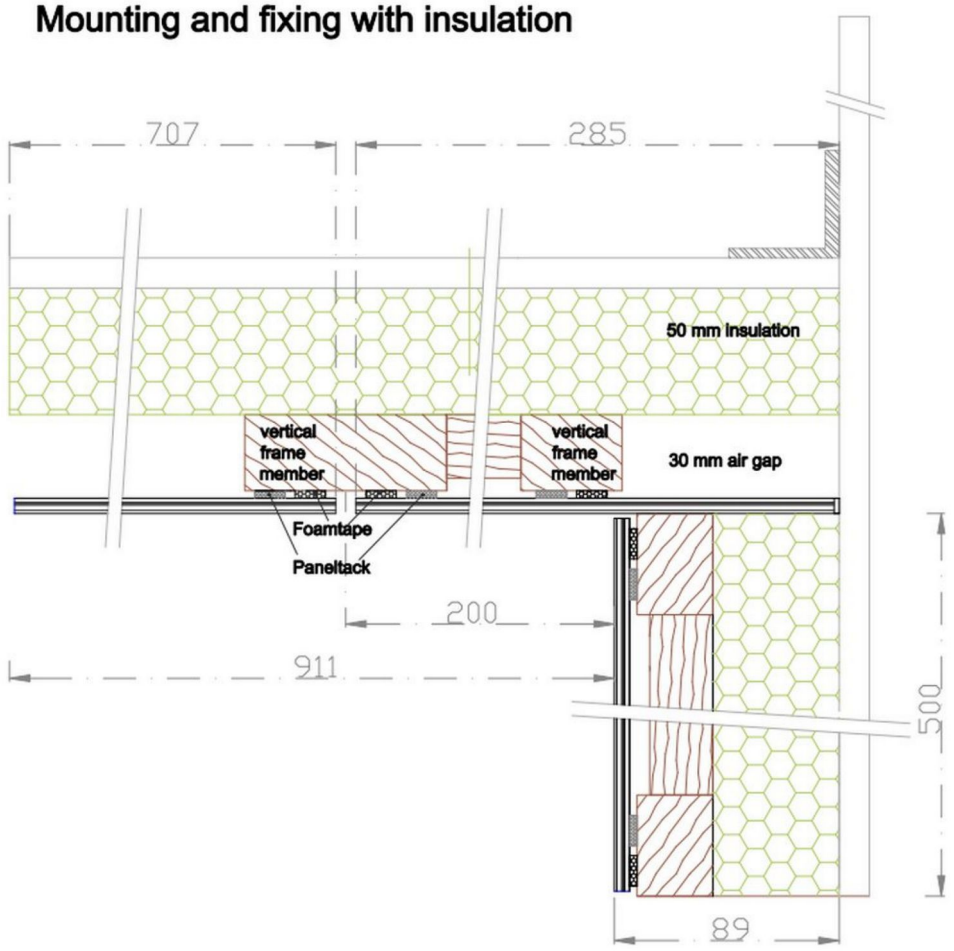
H.H.A. Leenders, BSc.
Head of Laboratory for For Fire Testing

D.J. den Boer, BSc.
Management

This report contains 14 pages

Appendix I Drawings (1 page)

Mounting and fixing with insulation



Bostik Foamtape

Bostik Paneltack

The adhesive bonding system consists of:

- 1: Pretreatment for cladding panel: Bostik Primer Paneltack
- 2: Pretreatment for support construction: Bostik Primer SX Black
- 3: Bostik H770 Paneltack Interior
- 4: Bostik Foamtape
- 5: HPL panel