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PRODUCT TYPE CLASSIFICATION OF REACTION TO FIRE IN ACCORDANCE WITH EN 13501-1:2018

Petitioner's reference:	**STYLAM INDUSTRIES LIMITED** SCO 14, Sector 7C Madhya Marg Chandigarh (India)- 160019
Prepared by:	**LGAI Technological Center, S.A. (APPLUS)** Campus UAB Ronda de la Font del Carme, s/n E - 08193 Bellaterra (Barcelona)
Notified Body No:	**0370**
Product name:	**Stylam Hight pressure Laminate Fire retardant - 6mm Thick**
Report No.:	**24/32306465-2**
Date of issue:	**2nd September, 2024**

1- INTRODUCCIÓN

This classification report defines the classification assigned to Stylam Hight pressure Laminate Fire retardant - 6mm Thick in accordance with the procedures given in the EN 13501-1:2018 standard.

LGAI TECHNOLOGICAL CENTER, S.A. is notified body nº 0370 under Construction Product Regulation nº 305/2011 for CE Marking; System 3.

2. DETAILS OF CLASSIFIED PRODUCT

2.1.-General

According to the petitioner, the product Stylam Hight pressure Laminate Fire retardant - 6mm Thick is defined according to the European standard EN 438-7:2005 "High-pressure decorative laminates (HPL) - Sheets based on thermosetting resins (Usually called Laminates) - Part 7: Compact laminate and HPL composite panels for internal and external wall and ceiling finishes"

2.2.- Description of the product

Samples of a High-pressure decorative laminates (HPL), with Applus internal code 24/26491, was received with the following indications in accordance with the technical specifications provided by the petitioner:

Product trade name: **Stylam High Pressure Laminate Fire retardant 6mm Thick.**

Technical details of the sample:

The High Pressure compact laminate comprised of kraft paper layer impregnated with thermosetting phenolic resin and Décor paper layers impregnated with thermosetting melamine resin. The pack is heated and pressed at high pressure and is made by 3 layers:

Layer 1: Sheet of decorative paper impregnated with fire-retardant melamine resin, with a thickness of 0,15 mm, a density of 730 kg/m^3, superficial density of 0.12 kg/m^2, grey colour and smooth appearance.

Layer 2: 50 Sheets of fire-retardant kraft paper impregnated with phenolic resin with a thickness of 6 mm, a density of 741 kg/m^3, superficial density of 0,19 kg/m^2, brown colour and smooth appearance.

Layer 3: Sheet of decorative paper impregnated with fire-retardant melamine resin, with a thickness of 0,15 mm, a density of 730 kg/m^3, superficial density of 0,12 kg/m^2, grey colour and smooth appearance.

Fixing system: The product was fixed mechanically using the fireproof wood frame plasterboard in accordance with the specifications of the standard harmonized European EN 438-7:2005 and fixed mechanically on a gypsum and in accordance with the specifications of the standard EN 13238:2010.

Manufacturer: STYLAM INDUSTRIES LIMITED. SCO 14, Sector 7C, Madhya Marg, Chandigard (India) – 160019

3- REPORT AND RESULTS IN SUPPORT OF THIS CLASSIFICATION

3.1- Reports

Name of Laboratory	Name of Petitioner	Report ref. no.	Test method and date
Applus – LGAI	Stylam insdustries Limited	24/32306465-1	EN ISO 11925-2:2020 30-08-2024
			EN 13823:2020+A1:2022 07-08-2024

3.2- Results of the Tests

Test Method	RESULTS – Stylam Hight pressure Laminate Fire retardant - 6mm Thick			
	CRITERIA CLASS B	**Nº TESTS**	**AVERAGE**	**COMPLIANCE**
EN ISO 11925-2:2020	$F_s \leq 150$ mm within 60 s	12	$F_s < 150$ mm	**YES**
EN 13823:2020+A1:2022	$FIGRA_{0,2\ MJ} \leq 120$ W/s	3	21,37	**YES**
	LFS < < edge of the sample	3	< to edge	**YES**
	$THR_{600s} \leq 7,5$ MJ	3	2,55	**YES**
	CRITERIA subclass 's1'	**Nº TESTS**	**AVERAGE**	**COMPLIANCE**
	SMOGRA ≤ 30 m^2/s^2	3	0,41	**YES**
	$TSP_{600s} \leq 50$ m^2	3	22,97	**YES**
	CRITERIA subclass 'd0'	**Nº TESTS**	**AVERAGE**	**COMPLIANCE**
	Fall of droplets/particles in flames within 600 s	3	NO	**YES**

4- CLASSIFICATION AND FIELD OF APPLICATION

4.1- Reference of classification

This classification has been carried out in accordance with EN 13501-1:2018: "Classification in terms of the behaviour to fire of construction products and building elements. Part 1: Classification made from the data gathered during fire reaction tests".

4.2- Classification

The product, Stylam Hight pressure Laminate Fire retardant - 6mm Thick in relation to its reaction to fire behaviour is classified:

B

The additional classification in relation to smoke production is:

s1

The additional classification in relation to flaming droplets / particles is:

d0

Fire behaviour		Smoke production			Flaming droplets	
B	-	s	1	,	d	0

REACTION TO FIRE CLASSIFICATION: B-s1,d0

This classification is only valid for the final conditions of use described in the present report.

4.3.- Field of application

- This classification is valid for the following product parameters:

The classification is only valid for the product characteristics shown, with the following parameters being extended:

- Variable parameter 1: Frame

The product Stylam Hight pressure Laminate Fire retardant - 6mm Thick can be fixed in different materials.

The tests were carried out and completed with an fireproof wooden framed. As indicated by the product standard EN 438-7:2005, the result of a test using the standard frame of wood-based battens shall be valid, without test, for all other types of frame (e.g. aluminium, steel frames) and are included in the following Euroclass:

REACTION TO FIRE CLASSIFICATION: B-s1,d0

This classification is only valid for the final conditions of use described in the present report.

- The classification is valid for the following final use applications:

The product Stylam Hight pressure Laminate Fire retardant - 6mm Thick is intended to be used as wall coating in exterior or interior application.

Substrate	Gypsum plasterboard + Wood frame
Fixing method	Mechanically
Joint	Vertical and horizontal joint
Air cavity	30 mm cavity and ventilated.
Others	-

5.- LIMITATIONS

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

The classification assigned to the product in this report is appropriate to a declaration of conformity by the manufacturer within the context of system 3 of AVCP and CE marking under the Regulation 305/2011/EU of the European Parliament and of the Council of 9 March 2011 laying down harmonised conditions for the marketing of construction products.
The manufacturer has made a declaration, which is held on file. This confirms that the products design requires no specific processes, procedures or stages (e.g. no addition of flame-retardants, limitation of organic content, or addition of fillers) that are aimed at enhancing the fire performance in order to obtain the classification achieved. As a consequence the manufacturer has concluded that system 3 attestation is appropriate.
The test laboratory has, therefore, played no part in sampling the product for the test, although it holds appropriate references, supplied by the manufacturer, to provide for traceability of the samples tested.

Digitally signed by
Salvador Suñol Gálvez

Digitally signed by Vanessa
Tutusaus Domingo

Laboratory Manager LGAI Technological Center S.A. (APPLUS)	Responsible of Euroclasses LGAI Technological Center S.A. (APPLUS)

The uncertainty expanded of the measure U, has been obtained by multiplying the typical measurement uncertainty by the coverage factor k, such that the coverage probability is approximately 95%

The results refer exclusively to the samples tested at the time and under the conditions indicated. The results refer exclusively to the samples tested at the time and under the conditions indicated. The decision rule agreed with the client to give a declaration of conformity with the specification or standard, is following a simple binary decision rule, in line with what is established ILAC G8.

Uncertainty associated to the Small Burner Test: No inflammation, thus, Time=N.A.
Uncertainty associated to the Single Burned Item (SBI) Test: FIGRA0,2MJ ±8,43 W/s; THR600s=±1,96 MJ; SMOGRA=±6,96 m^2/s^2; TSP600s=±23,52 m^2; Time (Fall of droplets/particles) =N.A.

Applus+ guarantees that this task has been carried out in compliance with the requirements of our Quality and Sustainability System, and furthermore, that the contractual terms and legal regulations have been complied with. In the framework of our improvement programme, we would appreciate any comments you may deem appropriate. These should be addressed to the manager who signs this document, or to the Quality Director of Applus+, at the following address:satisfaccion.cliente@applus.com