AIDIMME
INSTITUTO TECNOLÓGICO

CLASSIFICATION REPORT

ilac-MRA ENAC ENSAYOS Nº 13/LE027

NUMBER	**251.Z.1905.022.EN.01** Work sheet: **21902143**
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NOTIFIED BODY	**Notified body for the European Regulation of the Construction Products Nº 305/2011 with number nº 1981.**
PAGE	**The report consists of 7 pages consecutively numbered, an annex of 1 page.**
TEST SPECIMEN	**Type: WALLS AND CEILING COVERINGS** **Reference: "RANGE LAMINADO IGNIFUGO, CALIDAD HGF/VGF/HDF DE 0,7MM DE ESPESOR Y SUPERIORES"**
CONCERNING TO	**CLASSIFICATION OF FIRE PERFORMANCE OF CONSTRUCTION PRODUCTS AND BUILDING ELEMENTS. CLASSIFICATION USING DATA OBTAINED IN REACTION TO FIRE TESTS.** **ACCORDING TO STANDARD UNE EN 13501-1:07+A1:2010.**
APPLICANT	**FORMICA, S.A.** **CL RIU VERD 8** **46470 ALBAL (VALENCIA)- SPAIN**
DATE/S OF TEST	**Reception of specimens: 02/05/2019** **Beginning of test: 13/05/2019** **End of test: 22/05/2019**
AUTORIZED SIGNATORIES	

Signed.: Ms. Raquel Cánovas Ruiz
Technician Fire Lab

Signed.: Mr. Stephane García Malpartida
Head of Fire Lab

Document digitally signed by a legal electronic signature

The test sample object of this report will remain in AIDIMME for a period of thirty days form the date of issuance thereof. After this period, the sample will be destroyed, so any claim must be carried out within these limits.

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CONTENTS

1. INTRODUCTION

This classification report defines the classification assigned to the product described in paragraph 2, in accordance with the procedures pointed in the UNE-EN 13501-1:2007+A1:2010 "Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests".

2. PRODUCT DATA CLASSIFIED

2.1 Inspection prior to test by the laboratory

Samples corresponding to compact laminate glued on fibrosilicate calcite. The sample is labelled with the following reference: 1905010-01

2.2. Description and Identification of the test ítem. Inspection prior to test..

Samples corresponding to a 16,4 mm thickness symmetric with an approximate density of 916,75 kg/m^3 composed by 0,7mm thickness flame retardant laminate of HGF/VGF/HDF quality, glued to a 15mm thickness calcium fibrosilicate with a density of 870 Kg/m^3, using the same resin that impregnates the paper, during the pressure/heat cycle of the press and the flame retardant laminate, HGF / VGF / HDF quality of 0.7 mm thickness. The laminate is composed of decorative paper (13.2% by weight), Kraft paper (58.5% by weight), melamine resin (6.6% by weight) and phenolic resin (21.7% by weight), having a density of 1410 Kg/m^3 with smooth colors and designs (woods, marbles and fantasies) imitating varied surfaces / textures.

The direct applicability of the fire reaction classification, according to classification standard UNE EN 13501-1, may be valid for all the products within the same family, if as family we mean the range of products within defined limits of variability of their parameters, for which it can be shown that the fire reaction classification does not change.

Thus, it is intended to classify a range of products where a selection is made based on the parameters contemplated by the range (thickness). According to customer information, the range to be tested basically consists of:

- Thickness: 0,7mm and higher

The tests, as well as the specimen selection are carried out taking as reference the different protocols defined by Sector Group SH02 (European body which coordinates all the aspects related to CE marking regarding the fire performance), and more specifically taking as reference document NB-CDP/SH02/06/029 “Classification following extended application: All specifications covering reaction to fire performance”).

Likewise, also are used as reference documents, the document CEN/TS 15117:09 “Guidance on direct and extended application” and the recommendations given in the document EN 15725:2011/AC:2012 “Extended application reports on the fire performance of construction products and building elements”.

Based on the above recommendations and the information provided by the customer and according to the paragraph 4.2.1 of the standard UNE 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” where it is indicated that for fire reaction tests, the classification of the thinnest product is valid for panels of the same type of greater thickness. At the same time in section

B.3 of the aforementioned standard, it is indicated that a representative selection of products from said range was adopted within the test plan.

- Thickness: 0,7mm

The classification shall be valid for all the products in the range as long as in the selected products the performance obtained can be reached by all the other products in the same classification.

The commercial references of the selected walls coverings according to the customer are:

- "LAMINADO IGNIFUGO, CALIDAD HGF/VGF/HDF DE 0,7 MM DE ESPESOR"
  (Ref. AIDIMME: 1905010-01)

The range of products, according to the information provided by the customer, is referenced as:

- "**RANGE LAMINADO IGNIFUGO, CALIDAD HGF/VGF/HDF DE 0,7 MM DE ESPESOR Y SUPERIORES"**

3. TEST REPORTS SUPPORTING THE CLASSIFICATION

Laboratory	Company/Customer	Test report reference	Test method
AIDIMME	FORMICA, S.A.	251.I.1905.022.EN.01	UNE EN 13823:12+A1:16
AIDIMME	FORMICA, S.A.	251.I.1905.022.EN.01	UNE EN ISO 11925-2:11

4. TEST RESULTS SUPPORTING THE CLASSIFICATION

Test method	Parameter	Numer of test	Results	
			Average of continuous parameter (m)	Parameter it has to fulfill
UNE EN ISO 11925-2:11 (little burner) "LAMINADO IGNIFUGO, CALIDAD HGF/VGF/HDF DE 0,7 MM DE ESPESOR Y SUPERIORES" Ref. AIDIMME: 1905010-01	Fs ≤ 150mm	12	Not applicable	yes
	Ignition of the filter paper		Not applicable	yes
UNE-EN 13823:12+A1:16 (SBI) "LAMINADO IGNIFUGO, CALIDAD HGF/VGF/HDF DE 0,7 MM DE ESPESOR Y SUPERIORES" Ref. AIDIMME: 1905010-01	FIGRA $_{0,2MJ}$ (W/s)	3	50,03	Not applicable
	FIGRA $_{0,4MJ}$ (W/s)		44,16	Not applicable
	THR_{600s} (MJ)		3,04	Not applicable
	SMOGRA (m^2/s^2)		28,81	Not applicable
	TSP_{600s} (m^2)		72,76	Not applicable
	LFS (Y/N)		Not applicable	yes
	Falling of flaming droptles/particles (Y/N)		Not applicable	yes

Note: The laboratory has estimated the uncertainties of the tests, which are available to the client.

5. CLASSIFICATION AND FIELD OF APPLICATION

5.1. Classification.

The direct applicability of the fire reaction classification, according to classification standard UNE EN 13501-1, may be valid for all the products within the same family, if as family we mean the range of products within defined limits of variability of their parameters, for which it can be shown that the fire reaction classification does not change.

The classification is valid for all the products of the range since in the representative specimens selected according to the protocol defined by Sector Group SH02 (taking as reference document NB-CDP/SH02/06/029, document CEN/TS 15117:05 and document UNE EN 15725:11/AC:2012), and sections 4.2.1 and B.3. of the UNE EN 438-7: 2005 standard, a similar performance and the same classification are obtained.

Therefore, according to standard UNE-EN 13501-1:07+A1:2010, and view of the test results and the classification criteria are attached at the Annex (table 1 of the mentioned standard), the simple described in section 2.1 of this report, all according to the information provided by the customer and referenced by the same **"RANGE LAMINADO IGNIFUGO, CALIDAD HGF/VGF/HDF DE 0,7 MM DE ESPESOR Y SUPERIORES"** is classified in relation to the fire behavior as:

Reaction to fire	Smoke production	Drops in flame
B	**s2**	**d0**

5.2. Field of application

The classified product is defined for the use as external and internal walls/ceilings.

This classification can be affected if any following influence parameters are modified:

5.2.1 Parameter of the product

- Composition: flame retardant laminate of HGF/VGF/HDF quality, glued to a 15mm thickness calcium fibrosilicate with a density of 870 Kg/m^3, using the same resin that impregnates the paper, during the pressure/heat cycle of the press
- Thickness: 0,7mm and higher
- Color: the color and design of the floor covering has no influence unless its modification involves a change in the composition or other parameters indicated. Smooth colors and designs (woods, marbles and fantasies).

5.2.2 End use applications

- Joins: Vertical joins allowed. Horizontal joins not allowed

6. LIMITATIONS

The result of this report only refers to the products described in paragraph 2 thereof.

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

The duration of the validity of this classification report is subject to applicable law at the time of issue.

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ANNEX

CLASSES OF BEHAVIOUR TO FIRE REACTION FOR CONSTRUCTION PRODUCTS EXCLUDING FLOOR COVERINGS ACCORDING TO STANDARD UNE EN 13501-1:07 +A1: 2010

Class	Test method (s)	Classification criteria	Additional declaration required
A1	UNE-EN-ISO 1182:2011 (1); *and*	$\Delta T \leq 30°C$; *and* $\Delta m \leq 50\%$; *and* $t_f = 0$ (that is, no sustained flaming)	-
	UNE–EN-ISO 1716:2011	PCS ≤ 2,0 MJ,kg^{-1} (1); *and* PCS ≤ 2,0 MJ,kg^{-1} (2) (2a); and PCS ≤ 1,4 MJ,m^{-2} (3); and PCS ≤ 2,0 MJ,kg^{-1} (4)	-
A2	UNE-EN-ISO 1182:2011 (1); *or*	$\Delta T \leq 50°C$; *and* $\Delta m \leq 50\%$; *and* $t_f \leq 20s$	-
	UNE-EN-ISO 1716:2011; *and*	PCS ≤ 3,0 MJ,kg^{-1} (1); *and* PCS ≤ 4,0 MJ,m^{-2} (2); and PCS ≤ 4,0 MJ,m^{-2} (3); and PCS ≤ 3,0 MJ,kg^{-1} (4)	-
	UNE-EN–13823:12+A1:16 (SBI)	FIGRA ≤ 120 W,s^{-1}; *and* LFS < sample edge; and $THR_{600s} \leq 7,5$ MJ	Smoke production(5); and Flamming Drops/particles(6)
B	UNE-EN 13823:12+A1:16 (SBI); *and*	$FIGRA_{0,2} \leq 120$ W,s^{-1}; *and* LFS < sample edge; *and* $THR_{600s} \leq 7,5$ MJ	Smoke production(5); and Flamming Drops/particles(6)
	UNE-EN-ISO 11925-2:2011(8): *Exposure = 30s*	Fs ≤ 150mm in 60s	
C	UNE-EN 13823:12+A1:16 (SBI); *and*	$FIGRA_{0,4} \leq 250$ W,s^{-1}; *and* LFS < sample edge ; *and* $THR_{600s} \leq 15$ MJ	Smoke production(5); and Flamming Drops/particles(6)
	UNE-EN-ISO 11925-2:2011(8): *Exposure = 30s*	Fs ≤ 150mm in 60s	
D	UNE,EN 13823:12+A1:16 (SBI); *and*	$FIGRA_{0,4} \leq 750$ W,s^{-1}	Smoke production(5); and Flamming Drops/particles(6))
	UNE-EN-ISO 11925-2:2011(8): *Exposure = 30s*	Fs ≤ 150mm in 60s	
E	UNE-EN-ISO 11925-2:2011(8): *Exposure = 15s*	Fs ≤ 150mm in 20s	Flamming Drops/particles(7)
F	UNE-EN-ISO 11925-2:2011(8): *Exposure = 15s*	Fs >150mm in 20s	Flamming Drops/particles(7)

(1) **For homogeneous products and substantial components of non-homogeneous products**

(2) **For any non-substantial component of non-homogeneous products**

(2a) **Alternatively, for any non-substantial component having an PCS≤ 2,0 MJ/m^2, as long as the product meets the following criteria UNE-EN 13823:2012+A1:2016 (SBI): FIGRA≤ 20 W,s^{-1}, y LFS< sample margin; y $THR_{600s} \leq 4,0$ MJ; and s1; and d0,**

(3) **For any internal non-substantial component of non-homogeneous product**

(4) **For a product as a whole**

(5) **s1= SMOGRA ≤ 30m^2,s^{-2} and $TSP_{600s} \leq 50$m^2 ; s2 = SMOGRA ≤ 180m^2,s^{-2} *and* $TSP_{600s} \leq 200$m^2;s3 = neither s1 nor s2**

(6) **d0 = No flamming droplets and particles in UNE-EN 13823:2012+A1:2016 (SBI) in 600s; d1 = No Flamming droplets and particles for more than 10s in UNE-EN 13823:2012+A1:2016 (SBI) in 600s; d2 = neither d0 nor d1; the ignition of the paper in UNE-EN-ISO 11925-2:2011 determines a classification d2,**

(7) **Success = no ignition of the paper (without classification) ; Fail = ignition of the paper (classification d2)**

(8) **Under conditions of surface flame attack and, if suitable for end conditions of product use, of edge flame attack.**