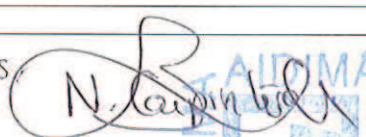
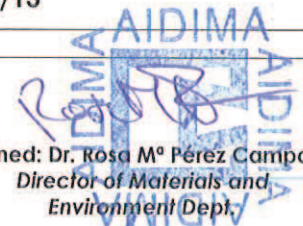


CLASSIFICATION REPORT

Classificación Report

NUMBER	1304037-01CL and 1304037-02 CL	Worksheet: 21300084
DATE OF ISSUE	April 25, 2013	
NOTIFIED BODY	Notified body to the European Commission for the Directive of the Construction Products 89/106/EEC with N° 1981	
PAGES	The report consists of 9 pages consecutively numbered, an Annex of 1 page and an informative annex of 1 page.	
TEST SPECIMEN	Type: FINISHING PROCESSES OVER MDF FIREPROOF (B-s2-d0) Reference: "RANGE TS 155X ILVACRYL MULTILAYER NON-YELLOWING"	
CONCERNIG 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	IVM CHEMICALS SRL Division: ILVA VIALE DELLA STAZIONE, 3 27020 PARONA (PV) - ITALY	
DATE/S OF TEST	Sample reception: 05/04/13 Tests beginning: 11/04/13 Tests Completion: 19/04/13	
AUTHORIZED SIGNATORY/IES	 Signed: Ms Nerea Carpintero Cardona Technician. Reaction to Fire Lab	 Signed: Dr. Rosa M° Pérez Campos Director of Materials and Environment Dept.

The result of this/these test/s only refers to the object/s tested.
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1. INTRODUCTION

This classification report defines the classification assigned to the product described in section 2, in accordance with the procedures outlined in standard UNE-EN 13501-1:2007 + A1: 2010 "Classification of fire performance of construction products and building elements. Part 1: Classification using test data obtained in reaction to fire".

2. PRODUCT DATA CLASSIFIED

2.1. Description and identification of the test object, Inspection Prior to Test

Samples from a range of transparent fireproof varnishes, aliphatic acrylic nature non-yellowing, used to perform finishing processes on wooden supports and derivatives, fireproof, applied with spray gun on medium density fiberboard MDF fireproof (classified as B-s2, d0 according to UNE EN 13501-1) of 19 mm thick.

The application process of transparent varnish includes:

- Two coats of product (TS 155X ILVACRYL MULTILAYER NON-YELLOWING + HARDENER TX 90 to 10%, X marks the degree of brightness) with an application grammage of approximately 120 g/m², with drying/curing between coats of 18 hours.

The ensemble presents a density of about (0.921 ± 0.01) g/cm³.

According to customer information, the range of varnishes to be tested has a common composition, type acrylic, being the main difference the degree of brightness (percentage of matting agent to obtain shiny surfaces, semi-matte or matt).

The scope of application of the reaction to fire classification according to classification standard UNE EN 13501-1, may be valid for products within the same family, if the family itself is defined as a range of products within defined limits of variability of its parameters, for which it is demonstrated that the reaction to fire classification remains unchanged.

Therefore, it is intended to certify a product range where a selection is performed based on the parameter which includes the range (brightness).

Based on the information provided by the customer we proceed to make a representative selection of the aforementioned product range, based on the degree of brightness, choosing a system/process of transparent finish and satin finished, a system/process of transparent finishing and matte finish, to perform the tests.

Tests as well as sample selection is conducted with reference to the different protocols defined by the Sector Group SH02 (European body that coordinates all aspects of the CE in terms of the fire characteristics), particularly taking as a reference the NB-CDP/SH02/06/029 document "Classification following extended application: All specifications covering reaction to fire performance).

Furthermore, are also used as reference documents the UNE-CEN/TS 15117:09 document: "Guidelines for the establishment of direct applications and extension of the applications" and the document's recommendations UNE-EN 15725:2011 / AC: 2012: "Reports of extension of the fire performance application of construction products and building elements".

Pursuant the aforementioned recommendations and information provided by the customer was adopted within the test plan, to perform a representative selection of products in that range, based on:

- Different degrees of finished gloss (percentage of matting to obtain shiny surfaces, semi-matte or matte).

For the SBI Test: you will need to try a full sample for transparent system with gloss degree whose results would be more unfavorable (performing previously partial tests).

Small Burner Test: Complete testing for all selected samples.

Classification will apply for all products in the range provided that in such selected products same reaction is observed so the same classification can be applied to all of them.

Commercial references of selected varnishing systems according to the customer, are:

- ↳ TRANSPARENT MATTE "TS 1557 ILVACRYL MULTILAYER NON-YELLOWING 10° GLOSS" Ref.: 1304037-01
- ↳ TRANSPARENT GLOW "TS 1553 ILVACRYL MULTILAYER NON-YELLOWING 40° GLOSS" Ref.: 1304037-02

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

- ↳ "RANGE TS 155X ILVACRYL MULTILAYER NON-YELLOWING"

2.2. Range of products

The reaction to fire classification according to the UNE EN 13501-1 standard classification is valid for products within the same family, if the family is defined as a range of products within defined limits of variability of its parameters, in this specific case the gloss finished degree parameter, for which it has been demonstrated that the classification of reaction to fire remains unchanged.

Thus, the range of products included in the scope of the classification results of reaction to fire, according to information provided by the customer is that covered by fireproof systems based on products of acrylic aliphatic non-yellowing (with different degrees of brightness), to perform finishing processes on wooden supports and fireproofing derivatives (B-s2, d0 according to UNE EN 13501-1), applied with spray gun in a process consisting of two coats of product (TS 155X ILVACRYL MULTILAYER NON-YELLOWING + HARDENER TX 90% to 10%, X marks the degree of brightness) with a application grammage of approximately 120 g/m², a drying/curing between coats of 18 hours.

3. TEST REPORTS TO SUPPORT THE CLASSIFICATION

Laboratory	Company/client	Reference of the test report	Test Method
AIDIMA	IVM CHEMICALS SRL	1304037-01 SBI + PQ and 1304037-02 SBI + PQ	UNE-EN 13823:12
AIDIMA	IVM CHEMICALS SRL	1304037-01 SBI + PQ and 1304037-02 SBI + PQ	UNE-EN ISO 11925-2:11

4. TEST RESULTS TO SUPPORT THE CLASSIFICATION

Test Method	Parameter	Number of tests	Results	
			Medium continuous parameter (m)	Parameters that must be met
UNE EN ISO 11925-2:11 (small burner)	Fs ≤ 150mm	6	Not applicable	yes
TRANSPARENT MATTE "TS 1557 ILVACRYL MULTILAYER NON-YELLOWING 10° GLOSS" Ref.: 1304037-01	Ignition of filter paper		Not applicable	yes
UNE-EN 13823:12 (SBI) TRANSPARENT MATTE "TS 1557 ILVACRYL MULTILAYER NON-YELLOWING 10° GLOSS" Ref.: 1304037-01	FIGRA _{0,2MJ} (W/s)	1	93,05	Not applicable
	FIGRA _{0,4MJ} (W/s)		72,24	Not applicable
	THR _{600s} (MJ)		3,94	Not applicable
	SMOGRA (m ² /s ²)		11,34	Not applicable
	TSP _{600s} (m ²)		83,75	Not applicable
	LFS (Y/N)		Not applicable	Yes
	droplets/particles into flame (Y/N)		Not applicable	yes

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Test Method	Parameter	Number of tests	Results	
			Medium continuous parameter (m)	Parameters that must be met
UNE EN ISO 11925-2:11 (small burner) TRANSPARENT MATTE "TS 1553 ILVACRYL MULTILAYER NON-YELLOWING 40° GLOSS" Ref.: 1304037-02	Fs ≤ 150mm	6	Not applicable	si
	Ignition of filter paper		Not applicable	si
UNE-EN 13823:12 (SBI) TRANSPARENT MATTE "TS 1553 ILVACRYL MULTILAYER NON-YELLOWING 40° GLOSS" Ref.: 1304037-02	FIGRA _{0,2MJ} (W/s)	3	109,32	Not applicable
	FIGRA _{0,4MJ} (W/s)		96,21	Not applicable
	THR _{600s} (MJ)		3,20	Not applicable
	SMOGRA (m ² /s ²)		14,15	Not applicable
	TSP _{600s} (m ²)		92,07	Not applicable
	LFS (Y/N)		Not applicable	si
	droplets/particles into flame (Y/N)		Not applicable	si

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5. CLASSIFICATION AND DIRECT FIELD OF APPLICATION

5.1. Classification

The scope of the reaction to fire classification according to the classification standard UNE EN 13501-1:07 + A1: 2010, is valid for all products within the same family, since the family is defined as a product range within defined limits of variability of its parameters, in this case the parameter degree of gloss.

The classification is valid for all products in the range because the selected representative samples in accordance with the protocol defined by the Sector Group SH02 (taking as reference the NB-CDP/SH02/06/029 document, the UNE-CEN / TS 15117:09 document and the UNE-EN 15725:2011 / AC: 2012 document) similar behavior is obtained and the same classification.

Therefore, according to standard UNE-EN 13501-1:07 + A1: 2010, and in view of the tests results and classification criteria are attached at the Annex (Table 1 of the above standard) , samples described in section 2.1 of this report, all according to information provided by the customer and referenced by the same as "RANGE TS 155X ILVACRYL MULTILAYER NON-YELLOWING", are classified regarding their behavior in response to fire as **B-s2, d0**.

Reaction to fire	Fumes production	Drops In Flame
B	S2	d0

5.2. Direct Scope.

This classification is valid for the end use application and transparent finishing process, for indoor use only, to fireproof wood supports with high performance in their reaction to fire (wood and wood derivatives, ranked by its fire properties as B-s2-d0 according to UNE EN 13501-1).

Samples are mounted on a substrate of calcium fluorosilicate that simulates the wall or ceiling which is going to be coated, installed while performing the practice.

The sample is mounted with its supporting plate by mechanical fixing, without screws or rear cavity between the substrate and the sample.

Also, not joints are reproduce, either horizontal or vertical in the test samples.



The mounting and fixing conditions, representative of the final terms of use, are described in the relevant test reports, according to the specifications recommended in both the appropriate test standard as in classification standard UNE EN 13501-1:07+A1:10.

It is also used as reference documents the UNE-CEN/TS 15447:08 document "Mounting and fixing in reaction to fire tests under the Directive of Construction Products".

Are used therefore mounting standard conditions and thus the test results obtained are valid for that end-use condition and for a greater number of applications.

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.

ANNEX

KINDS OF REACTION TO FIRE PERFORMANCE FOR CONSTRUCTION PRODUCTS EXCLUDING FLOOR COVERINGS ACCORDING TO UNE EN 13.501-1:07 + A1:2010

Type	Test Method	Classification criteria	Additional declaration required
A1	UNE-EN-ISO 1182:2011 ⁽¹⁾ , and	$\Delta T \leq 30^{\circ}\text{C}$; and $\Delta m \leq 50\%$; and $t_f = 0$ (that is, no sustained flaming)	-
	UNE-EN-ISO 1716:2011	$\text{PCS} \leq 2.0 \text{ MJ}\cdot\text{kg}^{-1}$ ⁽¹⁾ ; y $\text{PCS} \leq 2.0 \text{ MJ}\cdot\text{kg}^{-1}$ ⁽²⁾ (2a); y $\text{PCS} \leq 1.4 \text{ MJ}\cdot\text{m}^{-2}$ ⁽³⁾ ; y $\text{PCS} \leq 2.0 \text{ MJ}\cdot\text{kg}^{-1}$ ⁽⁴⁾	-
A2	UNE-EN-ISO 1182:2011 ⁽¹⁾ ; OR	$\Delta T \leq 50^{\circ}\text{C}$; y $\Delta m \leq 50\%$; y $t_f \leq 20\text{s}$	-
	UNE-EN-ISO 1716:2011; and	$\text{PCS} \leq 3.0 \text{ MJ}\cdot\text{kg}^{-1}$ ⁽¹⁾ ; y $\text{PCS} \leq 4.0 \text{ MJ}\cdot\text{m}^{-2}$ ⁽²⁾ ; y $\text{PCS} \leq 4.0 \text{ MJ}\cdot\text{m}^{-2}$ ⁽³⁾ ; y $\text{PCS} \leq 3.0 \text{ MJ}\cdot\text{kg}^{-1}$ ⁽⁴⁾	-
	UNE-EN-13823:2012 (SBI)	$\text{FIGRA} \leq 120 \text{ W}\cdot\text{s}^{-1}$; y LFS < Sample margin; and $\text{THR}_{600\text{s}} \leq 7.5 \text{ MJ}$	Smoke production ⁽⁵⁾ ; and Falling ignited drops/particles ⁽⁶⁾
B	UNE-EN 13823:2012 (SBI); and	$\text{FIGRA} \leq 120 \text{ W}\cdot\text{s}^{-1}$; y LFS < sample margin; and $\text{THR}_{600\text{s}} \leq 7.5 \text{ MJ}$	Smoke production ⁽⁵⁾ ; and Falling ignited drops/particles ⁽⁶⁾
	UNE-EN-ISO 11925-2:2011 ⁽⁸⁾ ; Exposure = 30s	$F_s \leq 150\text{mm}$ in 60s	drops/particles ⁽⁶⁾
C	UNE-EN 13823:2012 (SBI); and	$\text{FIGRA} \leq 250 \text{ W}\cdot\text{s}^{-1}$; y LFS < sample margin; and $\text{THR}_{600\text{s}} \leq 15 \text{ MJ}$	Producción de humo ⁽⁵⁾ ; y Falling ignited drops/particles ⁽⁶⁾
	UNE-EN-ISO 11925-2:2011 ⁽⁸⁾ ; Exposure = 30s	$F_s \leq 150\text{mm}$ in 60s	drops/particles ⁽⁶⁾
D	UNE-EN 13823:2012 (SBI); and	$\text{FIGRA} \leq 750 \text{ W}\cdot\text{s}^{-1}$	Smoke production ⁽⁵⁾ ; and Falling ignited drops/particles ⁽⁶⁾
	UNE-EN-ISO 11925-2:2011 ⁽⁸⁾ ; Exposure = 30s	$F_s \leq 150\text{mm}$ in 60s	drops/particles ⁽⁶⁾
E	UNE-EN-ISO 11925-2:2011 ⁽⁸⁾ ; Exposure = 15s	$F_s \leq 150\text{mm}$ in 20s	Falling ignited drops/particles ⁽⁷⁾
F	No properties determination		

- (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 $\text{PCS} \leq 2.0 \text{ MJ}/\text{m}^2$, as long as the product meets the following criteria UNE-EN 13823:2012 (SBI): $\text{FIGRA} \leq 20 \text{ W}\cdot\text{s}^{-1}$, and LFS < sample margin; and $\text{THR}_{600\text{s}} \leq 4.0 \text{ MJ}$; and s1; and d0.
(3) For any internal non-substantial component of non-homogeneous product
(4) For the product as a whole
(5) s1 = $\text{SMOGR}_A \leq 30 \text{ m}^2\cdot\text{s}^{-2}$ and $\text{TSP}_{600\text{s}} \leq 50 \text{ m}^2$; s2 = $\text{SMOGR}_A \leq 180 \text{ m}^2\cdot\text{s}^{-2}$ and $\text{TSP}_{600\text{s}} \leq 200 \text{ m}^2$; s3 = neither s1 nor s2
(6) d0 = No flaming droplets and particles in UNE-EN 13823:2012 (SBI) in 600s; d1 = No flaming droplets and particles for more than 10s in UNE-EN 13823:2012 (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 (d2 classification)
(8) Under conditions of surface flame attack and, if suitable for end conditions of product use, of edge flame attack.

**INFORMATIVE ANNEX (excluded from the scope of accreditation):
 SYSTEM CLASSIFICATION TO FIRE REACTION ACCORDING TO STANDARD UNE EN
 13.501-1:07 +A1: 2010**

The European classification system as to the behavior of materials in their reaction to fire, comprises 7 Euroclases or major classifications or A1, A2, B, C, D, E and F.

The Euroclases A1, A2 and B correspond to non-combustible products classes and of low flammability. Represent those safer construction products on safety against fire.

The Euroclases C, D and E correspond to products classified as fuels and constitute the most dangerous construction products regarding fire behavior.

Finally, the products classified in the Euroclase F are not subject to any evaluation of their performances against fire.

On the same basis regulations, a system has been developed specifically for the classification of products for floor coverings: A1fl, A2 fl B fl C fl, D, E and F fl fl (the subscript "fl" means coating ground-floor).

Excluding classes A1 and F, in the case of materials for coating walls and ceilings, the rest of the classes are complemented by two new classifications, one relating to the production and fume opacity, and the other to the production of drops or inflamed particles.

The levels of these parameters are three:

↳ For fume opacity, levels s1 (low amount and speed of emission of fume), s2 (amount and speed of emission of fume media) and s3 (higher amount and rate of emission of fume).

↳ For droplets or inflamed particles, are two levels (there are no droplets/inflamed particles), d1 (there are no droplets/inflamed particles for more than 10 seconds) and d2 (products that are not classified neither d0 nor d1).

For floor covering except also classes A1 and F, the subclassification only affects emission levels and fume opacity and are just two, s1 (low percentage of fume production and emission) and s2 (products for which there is not any stated behavior regarding fumes or those that do not satisfy the condition of s1).

Class A1: materials that can not contribute at any phase of the fire even the one regarding a fully developed fire. Not affected by supplementary classification of fume and flaming droplets.

Class A2: they must meet the same criteria as class B. In addition, at fully developed fire conditions, these products should not contribute significantly to the fire load and the fire development. Additional Classification of fumes production and flaming droplets.

Class B: very limited contribution to fire. As class C but satisfying more stringent requirements. Its especially affected by complementary classifications of fume production and flaming droplets. Furthermore, in terms of a fully developed fire, these products significantly increase the thermal load of the enclosure and the development of fire.

Class C: limited contribution to fire. As class D, but satisfying more stringent requirements. In addition, under thermal attack by a single burning item they have to offer a lateral spread of limited flame. It affects especially complementary classifications of fume production and flaming droplets.

Class D: acceptable contribution to fire. Products that meet the criteria for class E and are able to withstand, for a longer period of time, a small flame attack without producing substantial propagation of the flame. Furthermore, they must also be able to withstand thermal attack by a single burning item with sufficient delay and with a limited heat release. It affects especially complementary classifications of fume production and flaming droplets.

Class E: products able to withstand, for a short period of time the flame attack without producing substantial propagation thereof. It affects only the complementary classification of flaming droplets.

Class F: no particular behavior. Materials for which was not specified fire resistance characteristics or can not be classified into any of the other classes.

subclasses relating to the production of fumes	subclasses relating to the production of inflamed droplets / particles
s1 (Low amount and rate of fume emission)	d0 (No inflamed particles/droplets are produced)
s2 (Quantity and average rate of fume emission)	d1 (no inflamed particles/droplets longer >10s)
s3 (High amount and rate of fume emission).	d2 (products not classified as d0 and d1).

SILVIA BORJA PARDO, sworn translator duly appointed by the Ministry of Foreign Affairs of Spain, ID number 52686868D, hereby certifies that this a true and faithful translation into English of a document drafted in Spanish. Quart de Poblet, Valencia-Spain 06/06/ 2013.