CTF
centro técnico del fuego

CLASSIFICATION REPORT

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NOTIFIED BODY	**Notified body to the European Commission for the Directive of Construction Products 89/106/EEC with nº 1981**		
PAGES	**The report is in 6 pages correlatively numbered plus an appendix of 1 page and an information appendix of 1 page**		

TEST SPECIMEN	**Type:** SOLID SURFACE MADE UP OF ACRYLIC RESIN AND LOADS **Reference:** "KRION LUX"
CONCERNING TO:	**CLASSIFICATION OF THE BEHAVIOUR IN CASE OF FIRE OF THE CONSTRUCTION PRODUCTS AND THE BUILDING ELEMENTS. CLASSIFICATION USING AS A STARTING POINT THE DETAILS OBTAINED AT THE FIRE PERFORMANCE TESTS. ACCORDING TO STANDARD UNE-EN 13501 - 1:07**
APPLICANT	**SYSTEM POOL, S.A.** **CR. VILA REAL – PUEBLA DE ARENOSO, KM. 1** **12540 VILA-REAL (CASTELLÓN)**
DATE/S OF TEST	**Reception of specimens:** 27/10/10 and 16/10/10 **Beginning of tests:** 04/11/10 **End of tests:** 17/11/10

AUTHORIZED SIGNATORY/IES

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CONTENTS

1. INTRODUCTION

This classification report describes the classification allocated to the product described on section 2, according to the procedures stated in standard UNE-EN 13501-1:2007 "Classification of performance in case of fire of the construction products and the building elements. Part 1: Classification using as a starting point the details obtained at the fire performance tests".

2. DETAILS OF THE CLASSIFIED PRODUCT

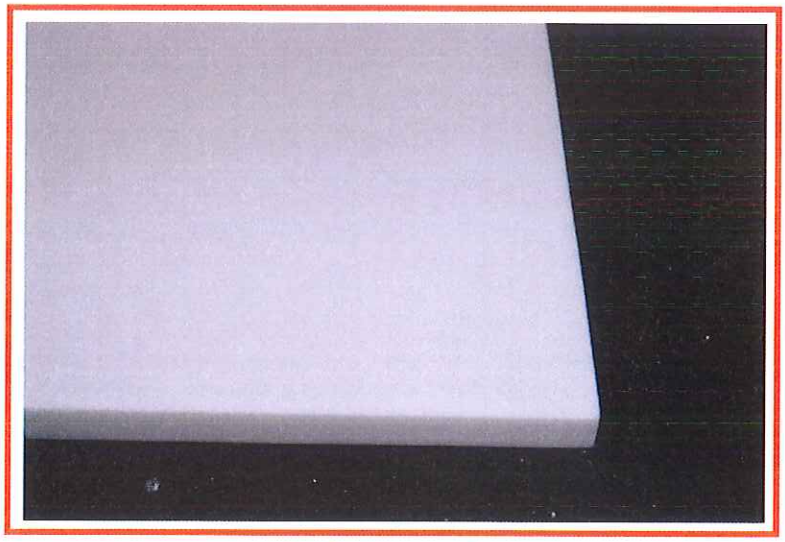
2.1. Description and identification of the tested item. Inspection before the test

Specimen corresponding to a lining made up of a solid surface consisting of acrylic resin, mineral loads and pigments, which shows a white colour (WHITE 1103), a matted appearance and flat finish, used in the field of linings for walls and ceilings.

The set shows a total approximate density between 11 mm and 12 mm, an approximate thickness of 1800 Kg/m^3 and an approximate superficial mass of 21.6 kg/m^2.

According to the customer, the commercial reference is:

- "KRION LUX"



Detail of the specimen

3. TEST REPORTS SUPPORTING THE CLASSIFICATION

Laboratory	Company/customer	Reference of the test report	Tests method
AIDIMA	SYSTEM POOL, S.A.	1010122-01 SBI + PQ	**UNE-EN 13823:02**
AIDIMA	SYSTEM POOL, S.A.	1010122-01 SBI + PQ	UNE EN ISO 11925-2:02

4. TEST RESULTS SUPPORTING THE CLASSIFICATION

Tests method	Parameter	N° of tests	Results	
			Average of continuous parameter (m)	Parameters it has to fulfil
UNE-EN 13823:02 (SBI) "KRION LUX"	FIGRA $_{0.2MJ}$ (W/s)	3	47,46	Not applicable
	FIGRA $_{0.4MJ}$ (W/s)		47,46	Not applicable
	THR_{600s} (MJ)		4,98	Not applicable
	SMOGRA (m^2/s^2)		1,29	Not applicable
	TSP_{600s} (m^2)		26,68	Not applicable
	LFS (S/N)		Not applicable	yes
	burning drops/particles (S/N)		Not applicable	yes

Tests method	Parameter	N° of tests	Results	
			Average of continuous parameter (m)	Parameters it has to fulfil
UNE EN ISO 11925-2:02 (Small burner) "KRION LUX"	Fs ≤ 150mm	3	**Not applicable**	**yes**
	Ignition of the filter paper		**Not applicable**	**yes**

5. CLASSIFICATION AND DIRECT APPLICABILITY

5.1. Classification

Therefore, according to standard UNE-EN 13501-1:07 and in the light of the results of the tests and the classification criteria attached in the appendix (Table 1 of the said standard), the specimen corresponding to a lining made up of a solid surface consisting of acrylic resin, mineral loads and pigments, which shows a white colour (WHITE 1103), a matted appearance and flat finish, used in the field of linings for walls and ceilings which shows a total approximate density between 11 mm and 12 mm, an approximate thickness of 1800 Kg/m3 and an approximate superficial mass of 21.6 kg/m2, all this according to information provided by the customer and referenced by him as "KRION LUX", is classified in relation to its fire performance as **B-s1-d0.**

Fire performance	Smoke production	Burning drops
B	S1	d0

5.2. Direct applicability

This classification is valid for the final us application as lining made up of a solid surface consisting of acrylic resin and loads of white colour (WHITE 1103), a matted appearance and flat finish, used in the field of linings for walls and ceilings. Its classification is valid for applications with this final use.

The specimens are directly set up on a calcium fribosilicate substratum which represents the wall or roof to be coated, according to what UNE-EN 13238 provides for and the installation is the same.

The preparation of the specimen, carried out by the customer, consists on the chemical fixing by "welding" between the lining and the fibrosilicate so that a whole linkage between the lining on this support is secured, at the same time that the whole perimeter of the specimen/fibrosilicate support is profiled with a metallic frame.

The wings of the specimen, assembled as detailed above, are installed in the specimen holder with its supporting plate, without cavities on the rear part between the substratum and the specimen. Likewise, a metallic profile with an "L" shape is installed between the union joint of the short wing and the long wing.

Likewise, neither horizontal nor vertical joints are reproduced in the specimens to be tested.

The conditions of assembly and fixing, which represent the final conditions of use, are described in the relevant test reports, according to the specifications established in the relevant test standard and in classification standard UNE EN 13501-1:07.

Document UNE-CEN/TS 15447:06 "Assembly and fixing in fire performance tests under the Construction Products Directive".

Therefore, standardized conditions of preparation and assembly are used and for this reason, the results of the test obtained are valid for this condition of final use and for a larger number of applications.

6. LIMITATIONS

The result of this report concerns only the products described in section 2 of the said report.

This document is neither a standard approval nor a certification of the product.

The duration of the effect of this classification report is subject to the law applicable when it was issued.

ANNEX

CLASSES OF FIRE PERFORMANCE FOR CONSTRUCTION PRODUCTOS EXCLUDING FLOOR COATINGS ACCORDING TO STANDARD UNE EN 13.501-1:07

Class	Test method(s)	Classification criteria	Additional compulsory statement
A1	UNE-EN-ISO 1182:2002 (1); *and*	$\Delta T \leq 30°C$; *and* $\Delta m \leq 50\%$; *and* $t_f = 0$ (that is to say, without sustained flame)	-
	UNE–EN-ISO 1716:2002	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 1182:2002 (1); *or*	$\Delta T \leq 50°C$; *and* $\Delta m \leq 50\%$; *and* $t_f \leq 20s$	-
	UNE-EN-ISO 1716:2002; *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–13823:2002 (SBI)	FIGRA ≤ 120 W.s^{-1}; *and* LFS < specimen margin; *and* $THR_{600s} \leq 7.5$ MJ	Smoke production(5); *and* Fall of burning drops/particles(6)
B	UNE-EN 13823:2002 (SBI); *and*	FIGRA ≤ 120 W.s^{-1}; *and* LFS < specimen margin; *and* $THR_{600s} \leq 7.5$ MJ	Smoke production(5); *and* Fall of burning drops/particles(6)
	UNE-EN-ISO 11925-2:2002(8): *Exposure = 30s*	Fs ≤ 150mm in 60s	
C	UNE-EN 13823:2002 (SBI); *and*	FIGRA ≤ 250 W.s^{-1}; *and* LFS < specimen margin; *and* $THR_{600s} \leq 15$ MJ	Smoke production(5); *and* Fall of burning drops/particles(6)
	UNE-EN-ISO 11925-2:2002(8): *Exposure = 30s*	Fs ≤ 150mm en 60s	
D	UNE.EN 13823:2002 (SBI); *and*	FIGRA ≤ 750 W.s^{-1}	Smoke production(5); *and* Fall of burning drops and particles(6)
	UNE-EN-ISO 11925-2:2002(8): *Exposición = 30s*	Fs ≤ 150mm en 60s	
E	UNE-EN-ISO 11925-2:2002(8): *Exposure = 15s*	Fs ≤ 150mm in 20s	Fall of burning drops/particles(7)
F	Without determining the properties		

(1) For homogeneous products and substantial components of non-homogeneous products
(2) For any non-substantial components of non-homogeneous products
(2a) Alternatively, for any non-substantial component which has a PCS≤ 2.0 MJ/m^2, provided that the product complies with the following criteria of UNE-EN 13823:2002 (SBI): FIGRA≤ 20 W.s^{-1}, and LFS< specimen margin; and $THR_{600s} \leq 4.0$ MJ; and s1; and d0.
(3) For any non-substantial internal component of non-homogeneous products
(4) For the product as a whole
(5) **s1=** SMOGRA ≤ 30m^2.s^{-2} *and* $TSP_{600s} \leq 50m^2$; **s2** = SMOGRA ≤ 180m^2.s^{-2} *and* $TSP_{600s} \leq 200m^2$;
s3 = neither s1 nor s2
(6) **d0** = Without fall of burning drops and particles in UNE-EN 13823:2002 (SBI) in 600s; **d1** = Without fall of burning drops and particles in 10s in UNE-EN 13823:2002 (SBI) in 600s; **d2** = neither d0 nor d1; ignition of paper in UNE-EN-ISO 11925-2:2002 determines a d2 classification.
(7) Success = absence of paper ignition (without classification); Failure = paper ignition (d2 classification)
(8) Under conditions of surface flame etching and, if appropriate, for the final usage conditions of the product, lateral flame etching.

INFORMATION ANNEX (excluded from the scope of the accreditation): CLASSIFICATION SYSTEM OF FIRE PERFORMANCE ACCORDING TO STANDARD UNE EN 13.501-1:07

The European classification system as far as the materials performance is concerned in their fire performance includes 7 euroclasses or main classifications: A1, A2, B, C, D, E and F.
Euroclasses A1, A2 and B correspond to the non-combustible and little combustible product classes. They represent those construction products which are safer regarding safety against fire.
Euroclasses C, D and E correspond to classified products as combustible and represent the most dangerous construction products regarding their performance against fire.
Finally, the products classified with Euroclass F do not undergo any kind of evaluation regarding their benefits with respect to their reaction to fire.

On the same regulation base, a specific system in order to classify the products for floor lining has been developed: $A1_{fl}$, $A2_{fl}$, B_{fl}, C_{fl}, D, E_{fl} y F_{fl} (subscript "fl" means floor lining -floor).

Except for classes A1 and F, in the case of materials for walls and roofs lining, the rest of classes are complemented by two new subclassifications, one regarding the production and opacity of smoke and the other regarding the production of burning drops or particles.
The levels of these parameters are three:

- For the smoke opacity, levels s1 (low amount and speed of smoke emission), s2 (middle amount and speed of smoke emissions) and s3 (high amount and speed of smoke emissions).
- For burning drops or particles, the levels are d0 (burning drops/particles are not produced), d1 (there are not any burning drops/particles whose duration is longer than 10 seconds) and d2 (products which are not classified neither as d0 nor as d1).

In the case of floor lining, with the exception also of classes A1 and F, the subclassification only affects at the levels of emission and opacity of smoke and they are only two, s1 (low percentage of smoke emission and production) and s2 (products for which no behaviour regarding the smoke is declared or those who do not meet the condition of s1).

Class A1: materials which cannot contribute in any phase of the fire including the corresponding one to the totally developed fire. *It is not affected by the additional classification of smokes and fall of drops.*

Class A2: they have to meet the same criteria as class B. Besides, in conditions of totally developed fire, these products do not have to contribute significantly to the fire load and the growth of the fire. *Additional classification of smoke production and fall of drops.*

Class B: very limited contribution to fire. It is like class C but meeting strictest requirements. *It is affected especially by the additional classification of smoke production and fall of drops.* Besides, in case of a totally developed fire, these products will not increase significantly the thermal load of the premises and the development of the fire.

Class C: limited contribution to fire. It is like class D but meeting the strictest requirements. Besides, under thermal etching by a single burning item they have to offer a side propagation of the limited flame. *It is affected especially by the additional classification of smoke production and fall of drops.*

Class D: acceptable contribution to fire. Products which meet the criteria corresponding to class E and which are able to resist, during a longer period of time, the etching of a small flame without producing a substantial propagation of the flame. Besides, they have to be able to resist thermal etching of a single burning item with a sufficient delay and with a limited heat release. *It is affected especially by the additional classification of smoke production and fall of drops.*

Class E: Products which are able to resist, during a short period of time, the etching of a flame without producing a substantial propagation of the flame. *It is only affected by the additional classification of fall of drops.*

Class F: without a determined behaviour. Materials for which characteristics of fire performance have not been specified or which cannot be classified into any of the other classes.

subclasses related **to smoke production**	**subclasses** related **to** the production of **burning drops/particles**
S1 (low amount and speed of smoke emission) **S2 (middle amount and speed of smoke emission)** **S3 (high amount and speed of smoke emission)**	**d0 (no burning drops/particles are produced)** **d1 (there are not burning drops/particles whose duration is longer than 10s)** **d2 (products which are not classified neither as d0 nor as d1)**