

Bellaterra: 16th Januray, 2018
File Number: **17/15736-3261 Part 1 English Version**
Petitioner's reference: **SYNTHESIA INTERNACIONAL, S.L.U.**
C/Argent, 3
08755 Castellbisbal (Barcelona)



TEST REPORT

Date at which the sample was received: 18-12-2017

1. - OBJECT OF THE TEST

Fire tests of construction products in compliance with the following standard:

- UNE-EN ISO 11925-2:2011: Reaction to fire tests. Ignitability of products subjected to direct impingement of flame. Part 2: Single-flame source test. (ISO 11925-2:2010).

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2.- PRODUCT CHARACTERISTICS

Rigid polyurethane foam samples have been received with the following indications, according to the technical specifications provided by the petitioner:

Product trade name: POLIURETAN SPRAY S-303 HFO-W
Batch 1159373

Polyurethane isolating foam (PUR) according to standard EN 14315-1.

The product have 4 layers approximately 15 cm/layer, 60 mm in thick, with a density of 35 kg/m³, yellow colour and rugous appearance.

Manufacturer: Synthesia Internacional, S.L.U. Address: C/Argent 3 – 08755
Castellbisbal (Barcelona).

3.- DESCRIPTION OF THE FINAL CONDITIONS FOR USE

Thermal insulation

4.- MAINTENANCE SPECIFICATIONS

Not applied.

5. - CONDITIONING

The product conditioning was conducted in compliance with Standard UNE-EN 13238:2011: "Reaction to fire tests for building products. Conditioning procedures and general rules for selection of substrates".

The samples were stored in a conditioning chamber at (23±2) °C, and at (50±5) % relative humidity, until a constant weight was reached.

6.- TESTS**6.1.- Small Burner Test in compliance with standard UNE-EN ISO 11925-2:2011**

Date at which test was performed: Start: 2-01-2018
End: 3-01-2018

During the tests, the environmental conditions of the laboratory were maintained at temperature of (23 ± 5) °C, and relative humidity of (50 ± 20) %.

6.1.1. – Method specifications according to final conditions for use:**6.1.1.a)- Flame exposure conditions**

The flame was applied above the surface of the sample, in accordance with the specifications contained in paragraph 7.3.3.1 of the test standard.

In addition, the flame was applied to the centre of the width of the bottom edge of the test specimen 1.5 mm behind the surface, in accordance with the specifications contained in paragraph 7.3.3.2.2. of the test standard.

6.1.1.b)- Conditions for flame application: 15 seconds

6.1.2.- General procedure based on paragraph 7.

Air velocity in compliance with paragraph 4.2 of the testing standard: 0.7 m/s

TEST SAMPLES	Application of the flame on the surface					
	Lengthwise			Crosswise		
	I	II	III	I	II	III
Duration of inflammation (in s)	14.0	16.0	16.0	14.0	17.0	16.0
Time needed to reach 150 mm (in s)	-	-	-	-	-	-
Ignition of the filter paper (yes/no)	NO	NO	NO	NO	NO	NO

(-) no inflammation has occurred during the test

TEST SAMPLES	Application of the flame on the edge (1.5 mm)					
	Longitudinal			Transversal		
	I	II	III	I	II	III
Duration of inflammation (in s)	15.0	14.0	14.0	14.0	16.0	14.0
Time needed to reach 150 mm (in s)	-	-	-	-	-	-
Ignition of the filter paper (yes/no)	NO	NO	NO	NO	NO	NO

(-) no inflammation has occurred during the test

Remarks

During the test, inflammation of the product was observed without dropping inflamed material on the filter paper or reaching 150 mm.

Uncertainty of measurement

1.2 s

7.- RESULTS

7.1.- UNE-EN ISO 11925-2:2011

Application of the flame on the surface

Flame propagation	Fs <150 mm in 20 seconds
Paper inflammation	NO

Application of the flame on the edge

Flame propagation	Fs <150 mm in 20 seconds
Paper inflammation	NO

The test results relate to the behaviour of test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

The Euro class to which the tested product belongs is defined in Part 2 of the Classification Report.

Responsible of the Fire Laboratory
LGAI Technological Center S.A. (APPLUS)

Responsible of Reaction to Fire
LGAI Technological Center S.A. (APPLUS)

The results refer exclusively to the samples tested at the time and under the conditions indicated.

The uncertainties expressed in this document pertain to the expanded uncertainty, which has been obtained by multiplying the typical measurement uncertainty by the coverage factor $k=2$ which, for a regular distribution, corresponds to a coverage probability of approximately 95%.

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In the event of litigation, the Spanish version will be valid