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Bellaterra: 06th March, 2019

File number: **19/18560-275 Part 1**

Petitioner's reference: **SYNTHESIA TECHNOLOGY EUROPE, S.L.U.**
C/Argent, 3
08755 Castellbisbal (Barcelona)

TEST REPORT

Date at which the sample was received: 08-02-2019

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).

2.- PRODUCT CHARACTERISTICS

Insulating polyurethane foam (PUR) samples have been received with the following indications, according to the technical specifications provided by the petitioner:

Product trade name: POLIURETAN SPRAY S-503 HFO
Batch 1174619

Rigid insulating polyurethane foam (PUR), close cell, 60 mm in thick (4 layers of 1.5 cm approximately), density of 55 kg/m^3, yellowy colour and orange peel appearance.

The test was carried out without substrate.

Manufacturer: Synthesia Technology Europe, 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) ºC, 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: 27-02-2019
End: 28-02-2019

During the tests, the environmental conditions of the laboratory were maintained at temperature of (23±5) ºC, 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)	15.0	14.0	15.0	16.0	15.0	16.0
Time needed to reach 150 mm (in s)	-	-	-	-	-	-
Ignition of the filter paper (yes/no)	NO	NO	NO	NO	NO	NO

(-) 150 mm flame spread was not reached.

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

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

(-) 150 mm flame spread was not reached.

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.

Digitally signed by Salvador Suñol Gálvez

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

Digitally signed by Vanessa Tutusaus Domingo

Responsible of Reaction to Fire
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