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# PRODUCT TYPE REPORT

| | |
|---|---|
| Petitioner's reference: | **TOPCRET**<br>Gran Vía de les Corts Catalanes, 828<br>08013 Barcelona |
| Prepared By: | **LGAI Technological Center, S.A. (APPLUS)**<br>Campus UAB<br>Ronda de la Font del Carme, s/n<br>E - 08193 Bellaterra (Barcelona) |
| Notified Body No: | **0370** |
| Product name: | **Baxab NF** |
| Report nº: | **19/21115-2708-1 English Version** |
| Date of issue: | **14th April, 2020** |

Date at which the simple was received: 20-12-2019

## 1.- OBJECT OF THE TEST

Test for Determination of the Product Type (DPT) of Reaction to Fire of the construction product UNE-EN 13813:2014: "Screed material and floor screeds – Screed material – Properties and requirements" according to the standards:

- UNE-EN-ISO 11925-2:2011: Flammability of construction products when these are exposed to the direct action of the flame. Part 2: Test performed with a single flame source.

- UNE-EN ISO 9239-1:2011: "Reaction to fire tests for floorings - Part 1: Determination of the burning behaviour using a radiant heat source".

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## 2.- PRODUCT CHARACTERISTICS

A superficial grey coating applied onto substrate, with Applus internal code 19/2708, was received with the following indications in accordance with the technical specifications provided by the petitioner:

Product trade name: Baxab NF

Two-component polymeric cementitious material.

The product is composed by four layers:

- Layer 1: Microcement base, thickness of 1 mm, superficial density of 1,8 kg/m$^2$, cement-grey colour and rough appearance.
- Layer 2: Baxab, thickness of 0,40 mm, superficial density of 0,64 kg/m$^2$, colour to choose and rough appearance.
- Layer 3: Baxab NF, thickness of 0,30 mm, superficial density of 0,54 kg/m$^2$, colour to choose and smooth appearance.
- Layer 4: Shielding, thickness of 0,1 mm and superficial density of 0,1 kg/m$^2$.
- Layer 5: Mesh, thickness of 0,2 mm, superficial density of 90 g/m$^2$, white colour and mesh appearance.

The petitioner did not provided more information.

Fixing system: The test was carried out with product applied onto the substrate (Fibre cement according to standard UNE-EN 13238:2011) by the petitioner.

Manufacturer: TOPCRET, Gran vía de les Corts Catalanes, 828, 08013 Barcelona.

## 3.- MAINTENANCE SPECIFICATIONS

Periodic washing with neutral soap and self-polishing wax use.

## 4.- DESCRIPTION OF THE FINAL CONDITIONS FOR USE

Floor covering.

## 5.- CONDITIONING

The product conditioning was conducted in compliance with Standard UNE-EN 13238:2011: "Fire Reaction Tests for construction materials. Conditioning procedures and general rules for the selection of substrates."
The samples were stored in a conditioning chamber at 23 ºC±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: 17-03-2020
End: 19-03-2020

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

**6.1.1. - Method specifications according to final conditions for use:**

**6.1.1.a)- Flame exposure conditions**

In addition, a 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

**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

| SAMPLES | Application of the flame on the surface | | | | | |
|---|---|---|---|---|---|---|
| | Lengthwise | | | Crosswise | | |
| | I | II | III | I | II | III |
| Duration of inflammation (in s) | - | - | - | - | - | - |
| 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, no product inflammation was observed, or any fall of material onto the filter paper.

**Uncertainty of measurement**

Not applied, because there isn't measurement.

## 6.2.- Radiant Panel Test in compliance with Standard UNE-EN ISO 9239-1:2011

Date at which test was performed: Start: 07-01-2020
End: 08-01-2020

During the tests, the environmental conditions of the laboratory were maintained at a temperature of (23±10)ºC, and relative humidity of (50±20)%.

### 6.2.1.- Definitions

**HF-X min:** Flow of heat in kW/m$^2$ received by the sample at the maximum distance of flame propagation noticed at minutes 10, 20, and 30 of the test.

**CFE:** This is defined as the critical heat flow at the point of extinction. It is the incident flow of heat in kW/m$^2$ on the surface of the sample, at the point at which the sample ceases to advance and consequently disappears. The heat flow values obtained are based on the interpolations of the measurements with the non-combustible calibration table.

**TLA:** Dimming of the light.

### 6.2.2. - Method Specifications

The tests were conducted on four samples. Samples 1l, 2l and 3l were cut lengthwise, while sample 1t was cut crosswise.
Sample identified as 1t and 1l were used initially, while the remaining samples were randomly made lengthwise, since , presumably , both directions are equally favourable / unfavourable.
Two minutes from the beginning of the test, the pilot flames were applied for 10 minutes. The total duration of the test for each sample amounted to 30 minutes.

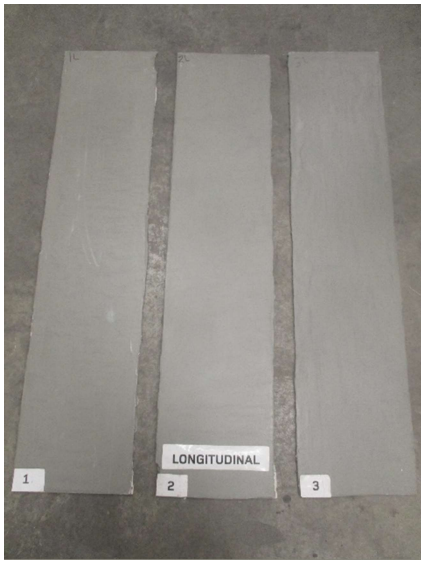


**Photo nº1:** View of the sample before the test. Lengthwise

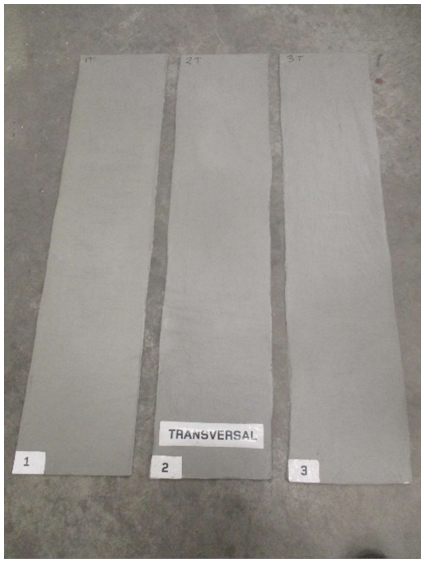


**Photo nº2:** View of the sample before the test. Crosswise.

| Data recorded during the test | 1l | 2l | 3l |
|---|---|---|---|
| Ignition time (s) | - | - | - |
| Extinction time (s) | - | - | - |
| Flame propagation after 600 s (in mm) | - | - | - |
| Flame propagation after 1200 s (in mm) | - | - | - |
| Flame propagation after 1800 s (in mm) | - | - | - |
| Maximum flame propagation time (s) | - | - | - |
| Maximum flame length (mm) | - | - | - |

(-) no inflammation occurred during the test.

**Remarks made during the test**

| Remarks | 1l | 2l | 3l |
|---|---|---|---|
| Temporary flame (flash) (yes/no) | NO | NO | NO |
| Fusion (yes/no) | NO | NO | NO |
| Carbonization (yes/no) | NO | NO | NO |
| Incandescence duration further to flame extinction (s) | - | - | - |
| Incandescence localization (in mm) | - | - | - |
| Flame penetration into the adjoining layer (yes/no) | - | - | - |

(-) no incandescence occurred during the test.

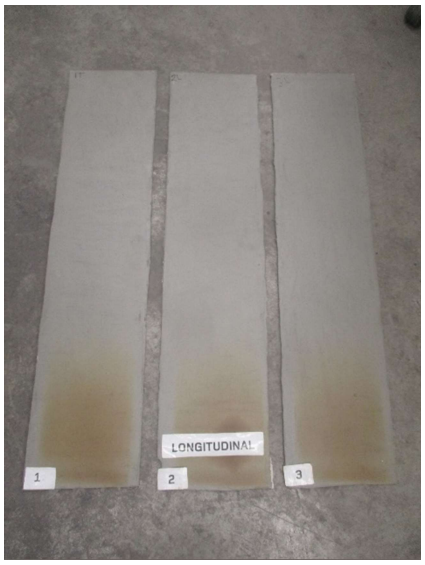


**Photo nº3:** Appearance of the area impacted by radiation on the three tested samples

| Samples | I | II | III | Average |
|---|---|---|---|---|
| HF-10 (KW/m$^2$) | 11,21 | 11,21 | 11,21 | 11,21 |
| HF-20 (KW/m$^2$) | 11,21 | 11,21 | 11,21 | 11,21 |
| HF-30 (KW/m$^2$) | 11,21 | 11,21 | 11,21 | 11,21 |
| **CFE (KW/m$^2$)** | **11,21** | **11,21** | **11,21** | **11,21** |
| **TLA-30(%.min)** | **7,23** | **22,25** | **13,08** | **14,19** |

**Measurement uncertainty associated to the test**

| | |
|---|---|
| CFE | ± 1,67 kW/m$^2$ |
| TLA | ± 5 %·min |

## 6.3.- Results

### 6.3.1.- UNE-EN ISO 11925-2:2011

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

### 6.3.2.- UNE-EN ISO 9239-1:2011

| | |
|---|---|
| Critical flow | 11,21 kW/m$^2$ |
| TLA-30 | 14,19 %·min |

**The test results correspond to the behaviour of test samples of a product under the testing conditions themselves. They do not intend to be the only evaluation criterion to assess the potential fire hazard involved in the use of the product.**

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

Digitally signed by Salvador Suñol Gálvez

Responsible of the fire laboratory
LGAI Technological Center S.A. (APPLUS)

Digitally signed by Marta Feliu Torné

Responsible of Euroclass
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