# TEST REPORT

**No. : XMIN2209008853CM**
**Date : Oct 12, 2022**


scan to see the report
XMIN2209008853CM

CUSTOMER NAME: CFL FLOORING (CHINA) CO., LTD.

ADDRESS: NO.111 CHANGJIANG ROAD, JIASHAN DEVELOPMENT AREA, JIAXING, P.R. CHINA

| | | |
|---|---|---|
| Sample Name | : | RIGID LVT |
| Product Specification | : | 5+1mm backing |

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

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| | | |
|---|---|---|
| SGS Ref. No. | : | GZMR220903045801 |
| Date of Receipt | : | Sep 22, 2022 |
| Testing Start Date | : | Sep 22, 2022 |
| Testing End Date | : | Oct 12, 2022 |
| Test result(s) | : | For further details, please refer to the following page(s)<br>(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested) |

Signed for
SGS-CSTC Standards Technical Services Co.，Ltd Xiamen Branch Testing Center

Bryan Hong
Authorized signatory

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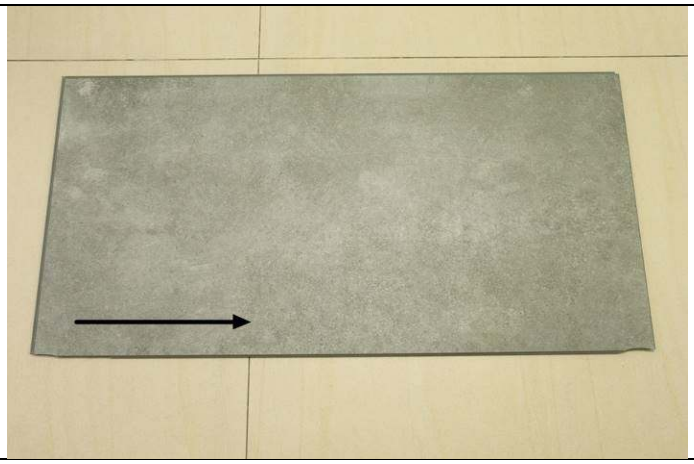
**No. : XMIN2209008853CM**
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Summary of Results:

| No. | Test Item | Test Method | Result |
|---|---|---|---|
| 1 | Fire Classification for Burning Behavior of Flooring Material | EN 13501-1:2018 Clause 9 & EN ISO 9239-1:2010 & EN ISO 11925-2:2020 | $B_{fl}$—s1 |

Note: The above test project/method was carried out by subcontractors.

Original Sample Photo:



Original sample A

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Test item: Fire Classification for Burning Behavior of Flooring Material

Sample Description: Floor

Test Method: EN 13501-1:2018 Clause 9 & EN ISO 9239-1:2010 & EN ISO 11925-2:2020

Test Result:

Ⅰ. EN ISO 9239-1:2010 Reaction to fire tests for floorings-Part 1: Determination of the burning behaviour using a radiant heat source

Specimen: 1050mm × 230mm × 6.2mm (make up of 2 pieces sample)

Flame application time: 10min

Mounting and fixing: Calcium silicate board, with its density about 1016kg/m$^3$, thickness about 21.4mm, is as the substrate. The specimens were fixed mechanically to the substrate.

| Specimen No. | Furthest extent of spread of flame, mm | Critical heat flux (CHF)，kW/m$^2$ | Integrated smoke value, %·min |
|---|---|---|---|
| 1 | 70 | ≥ 11 | 176.4 |
| 2 | 90 | ≥ 11 | 143.0 |
| 3 | 70 | ≥ 11 | 121.1 |
| Average | 80 | ≥ 11 | 147 |

Note:

1. Test specimens were cut from the sample.
2. Specimens that do not ignite or which spread flame less than 110 mm have a critical heat flux ≥ 11kW/m$^2$.
3. The smooth surface was faced to the flame.
4. Observations of the burning characteristics: Charring.

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Ⅱ. EN ISO 11925-2:2020 Reaction to fire tests-Ignitability of products subjected to direct impingement of flame-Part 2: Single-flame source test.

Specimen: 250mm × 90mm × 6.2 mm

Flame application time: 15s

| Exposure conditions | Edge exposure | | | Surface exposure | | |
|---|---|---|---|---|---|---|
| Specimen No. | 1 | 2 | 3 | 1 | 2 | 3 |
| Whether ignition occurs | Yes | Yes | Yes | Yes | Yes | Yes |
| Whether the flame tip reaches 150 mm above the flame application point within 20s | No | No | No | No | No | No |
| Whether ignition of the filter paper occurs | No | No | No | No | No | No |

Note:

1. Test specimens were cut from the sample.
2. The smooth surface was faced to the flame.
3. Observations of the burning characteristics: Charring.

Conclusion:

According to the test result and classification criteria (See table 1), the submitted sample satisfies Class $B_{fl}$

Reaction to fire classification: $B_{fl}$—s1

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Statement: The test results relate to the behavior of the 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.

Table 1. Classes of reaction to fire performance for floorings

| Class | Test method(s) | Classification criteria | Additional classification |
|---|---|---|---|
| $A1_{fl}$ | EN ISO 1182 [a]<br>and | $\Delta T \leq 30$ °C; and<br>$\Delta m \leq 50$ %; and<br>$t_f = 0$ (i.e. no sustained flaming) | - |
| | EN ISO 1716 | *PCS* ≤ 2,0 MJ/kg [a] and<br>*PCS* ≤ 2,0 MJ/kg [b] and<br>*PCS* ≤ 1,4 MJ/m$^2$ [c] and<br>*PCS* ≤ 2,0 MJ/kg [d] | - |
| $A2_{fl}$ | EN ISO 1182 [a]<br>or | $\Delta T \leq 50$ °C and<br>$\Delta m \leq 50$ % and<br>$t_f \leq 20$ s | - |
| | EN ISO 1716<br>and | *PCS* ≤ 3,0 MJ/kg [a] and<br>*PCS* ≤ 4,0 MJ/m$^2$ [b] and<br>*PCS* ≤ 4,0 MJ/m$^2$ [c] and<br>*PCS* ≤ 3,0 MJ/kg [d] | - |
| | EN ISO 9239-1 [e] | Critical flux [f] ≥ 8,0 kW/m$^2$ | Smoke production [g] |
| $B_{fl}$ | EN ISO 9239-1 [e]<br>and | Critical flux [f] ≥ 8,0 kW/m$^2$ | Smoke production [g] |
| | EN ISO 11925-2 [h]:<br>Exposure = 15 s | *F*s ≤ 150 mm within 20 s | - |
| $C_{fl}$ | EN ISO 9239-1 [e]<br>and | Critical flux [f] ≥ 4,5 kW/m$^2$ | Smoke production [g] |
| | EN ISO 11925-2 [h]:<br>Exposure = 15 s | *F*s ≤ 150 mm within 20 s | |

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| | | | |
|---|---|---|---|
| $D_{fl}$ | EN ISO 9239-1 [e] and | Critical flux [f] ≥ 3.0 kW/m$^2$ | Smoke production [g] |
| | EN ISO 11925-2 [h]: Exposure = 15 s | *F*s ≤ 150 mm within 20 s | |
| $E_{fl}$ | EN ISO 11925-2 [h]: Exposure = 15 s | *F*s ≤ 150 mm within 20 s | - |
| $F_{fl}$ | EN ISO 11925-2 [h]: Exposure = 15 s | *F*s ＞ 150 mm within 20 s | - |

[a] For homogeneous products and substantial components of non-homogeneous products.

[b] For any external non-substantial component of non-homogeneous products.

[c] For any internal non-substantial component of non-homogeneous products.

[d] For the product as a whole.

[e] Test duration = 30 min.

[f] Critical flux is defined as the radiant flux at which the flame extinguishes or the radiant flux after a test period of 30 min, whichever is the lower (i.e. the flux corresponding with the furthest extent of spread of flame).

[g] s1 = Smoke ≤ 750 % minutes;
s2 = not s1.

[h] Under conditions of surface flame attack and, if appropriate to the end use application of the product, edge flame attack

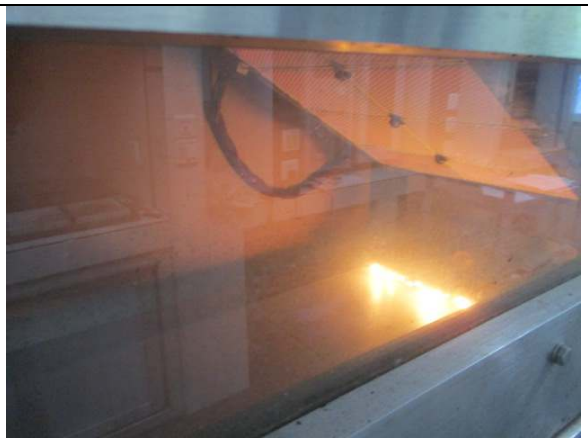
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Test Photo:



During test- Radiant heat source



Before test- Radiant heat source



After test- Radiant heat source

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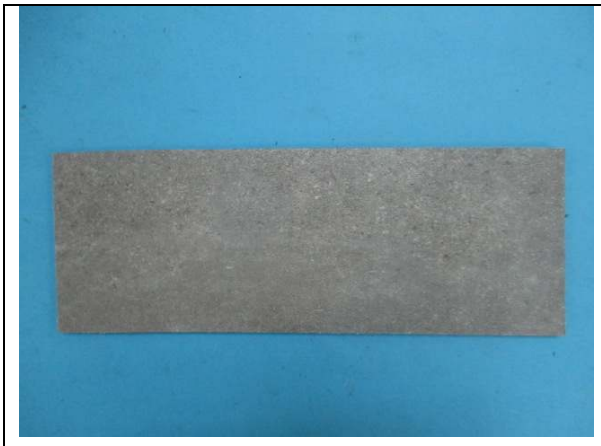
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**Date : Oct 12, 2022**


| | |
|---|---|
|  |  |
| During test- Ignitability- Edge exposure | During test- Ignitability- Surface exposure |
|  |  |
| Before test- Ignitability-Edge exposure | After test- Ignitability- Edge exposure |

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| | |
|---|---|
|  |  |
| Before test-Ignitability- Surface exposure | After test- Ignitability- Surface exposure |

******** End of report********

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