SATRA Technology Centre Ltd
Wyndham Way, Telford Way, Kettering,
Northamptonshire, NN16 8SD United Kingdom
Tel: +44 (0) 1536 410000
email: info@satra.com
www.satra.com

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TECHNICAL REPORT

DURAMAT LTD Unit 6, Causeway End Manningtree CO11 2LH United Kingdom	SATRA reference:	FLO4215P2B0	
		2340	2
	Report ID/Issue number:	33562/1	
	Your reference:		
	Date samples received:	04/09/2023	
	Date(s) work carried out:	04/09/2023 to 16/10/2023	
	Date of report:	07/11/2023	

Testing Requirements

Testing of one product described by the customer as "PVC Floor Tile" to EN ISO 11925-2:2020 (L/NCS).

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Report Signed by:

Reece Johnson

Report Signatory

TESTING OF ONE PRODUCT, DESCRIBED BY THE CUSTOMER AS 'PVC FLOOR TILE' TO EN ISO 11925-2:2020 (L/NCS)

As requested by Duramat Ltd, SATRA have assessed the floor covering submitted to determine its ignitability when subjected to direct flame impingement using a single flame source at the surface of the sample for 15 seconds, as detailed below.

CONCLUSION

With regard to the properties assessed, the sample submitted under the reference 'PVC Floor Tile' has demonstrated no ignition of the floor covering, the flame did not reach the critical distance of 150mm, and there was no ignition of the filter paper, which would be caused by flaming droplets.

SAMPLE SUBMITTED

Sample reference: 'PVC Floor Tile' (1)
Appearance:

Date received: 04 September 2023 (2)
Date conditioning commenced: 05 October 2023 (3)
Testing conducted: 16 October 2023
Testing conducted by: Dusan Pekarovic

TESTS CARRIED OUT

- EN ISO 11925-2:2020. Reaction to fire tests – Ignitability of products subject to direct impingement of flame. Part 2 – Single-flame source test. (L/NCS)(2)

Notes:

(1) Information supplied by the customer. Not verified by SATRA.
(2) The specimens were provided to SATRA by the customer. SATRA were not involved in the selection or sampling procedure.
(3) Prior to testing, the specimens were conditioned at (23 ± 2) °C, (50 ± 5) % RH, until constant mass was achieved, or for a fixed period of time as defined in EN 13238:2010.

FULL DESCRIPTION OF TEST SPECIMENS (1)

The description of the specimen given below has been prepared from information provided by the sponsor of the test. All values quoted are nominal, unless tolerances are given.

General description of flooring system			PVC interlocking floor tile
Product reference of flooring system			PVC Floor Tile
Colour reference			Black / Grey
Name of Manufacturer			Big mats ltd
Overall weight per unit area			2.2kg per tile
Overall Thickness			7mm
Product Configuration			
Floor covering	Layer 1	Product Reference	PVC FLOOR TILE
		Generic Type	FLOOR TILE
		Name of Manufacturer	BIG MATS LTD
		% Composition	100% RECYCLED PVC
		Weight per unit area	2.2KG
		Thickness	7MM
		Trade name of flame retardant	N/A
		Generic form of flame retardant	N/A
		Amount of flame retardant	N/A
Brief Description of the manufacturing process			Note 1

LABORATORY SUPPLIED SUBSTRATE;

Adhesive	Product Reference	N/A
	Generic Type	N/A
	Name of Manufacturer	N/A
	Density (20ºC)	N/A
	Colour	N/A
Substrate	Product reference	'Cembrit HD'
	Generic type	Fibre cement board
	Name of supplier	Clarkes of Walsham Ltd
	Thickness	(8 ± 2) mm
	Density	(1800 ± 200) kg/m³

Note 1: The sponsor of the test has failed to provide the information
Note 2: The sponsor has provided the required information but at the request of the sponsor it has been omitted from the final report.
Note 3: The sponsor was unwilling to provide the required information.

RESULTS

Sample reference	Test method	Property	Results
'PVC Floor Tile'	EN ISO 11925-2: 2020	Ignition of floor covering surface	NO
		Flame spread to 150mm and minimum time taken.	NO
		Flaming droplets causing ignition of filter paper	NO
		Observations	No ignition

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

The test results relate only to the specimens of the product in the form in which they were tested. Small differences in the composition or thickness of the product may significantly affect the performance during the test and may therefore invalidate the test results. Care should be taken to ensure that any product which is supplied or used is fully represented by the specimens which were tested. Test results using a standard substrate complying with EN 13238:2010 Clause 5.2.2 or Clause 5.2.3 are applicable if the density of the end use substrate is at least 75% of the nominal density of the standard substrate.

The specification and interpretation of fire test methods are the subject of ongoing development and refinement. Changes in associated legislation may also occur. For these reasons it is recommended that the relevance of test reports over five years old should be considered by the user. The laboratory that issued the report will be able to offer, on behalf of the legal owner, a review of the procedures adopted for a particular test to ensure that they are consistent with current practices, and if required may endorse the test report.

TEST DETAILS

Purpose of test	To determine the performance of specimens of a product when they are subjected to the conditions of the test procedure defined in the document EN ISO 11925-2:2020. The test was performed in accordance with the procedure specified in EN ISO 11925-2:2020 and this report should be read in conjunction with that standard.
Scope of test	EN ISO 11925-2:2020 specifies a method of test for determining the ignitability of building products by direct small flame impingement under zero impressed irradiance using specimens tested in a vertical orientation.
Number of specimens tested	In accordance with EN ISO 11925-2:2020, three specimens in each direction were tested. Where applicable the results relate to the worst performing specimen.
Exposure conditions	As required for the testing of floorcoverings in accordance with EN 13501-1:2018 Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests, the samples were subjected to a flame exposure time of 15 seconds, using the surface exposure conditions defined in EN ISO 11925:2020.
Adhesive	The specimen was tested loose-laid (L) over the substrate.
Substrate	Non-combustible substrate (NCS) - End use substrates of classes A1 and A2-s1,d0, are represented by fibre cement board (in accordance with ISO 390)

TABLE 1 – FULL TEST RESULTS - INDIVIDUAL SPECIMEN RESULTS FOR SPECIMEN REFERENCED 'PVC FLOOR TILE'

Test flame application position – Surface of sample referenced as 'PVC Floor Tile' – Direction of manufacture.

Specimen No.	Ignition YES/NO	Time from start of test for flame to reach 150mm (seconds)	Extent of flame spread (mm)	Flaming debris	Glowing	Extent of Damaged Area (mm)	
						Height	Width
1	No	N/A	46	No	No	71	24
2	No	N/A	48	No	No	72	25
3	No	N/A	49	No	No	73	24

Test flame application position – Surface of sample referenced as 'PVC Floor Tile'– Perpendicular to direction of manufacture.

Specimen No.	Ignition YES/NO	Time from start of test for flame to reach 150mm (seconds)	Extent of flame spread (mm)	Flaming debris	Glowing	Extent of Damaged Area (mm)	
						Height	Width
1	No	N/A	49	No	No	70	23
2	No	N/A	49	No	No	68	22
3	No	N/A	48	No	No	70	24

OBSERVATIONS

Specimens did not ignite.

Conditions of Use

Confidentiality and Dissemination

SATRA test reports may be forwarded to other parties provided that they are not changed in any way and are not marked as confidential. Test reports must not be published, for example by including it in advertisements, without the prior, written permission of SATRA.

Liability

Results given in this report refer only to the samples submitted for analysis and tested by SATRA. Comments are for guidance only.

A satisfactory test report in no way implies that the product tested is approved by SATRA and no warranty is given as to the performance of the product tested. SATRA shall not be liable for any subsequent loss or damage incurred by the client as a result of information supplied in the report.

Accreditation

Where the UKAS logo is included on the test report then tests marked ≠ fall outside the UKAS Accreditation Schedule for SATRA. Where no UKAS logo is included on the test report then none of the tests reported are covered by SATRA's UKAS Accreditation.

Tests marked ¥ are performed under SATRA's Flexible UKAS Schedule.

Uncertainty of Measurement and Decision Rules

Where values for uncertainty of measurement are included within the report then the uncertainty of the corresponding results are based on a standard uncertainty multiplied by a coverage factor k=2, which provides a coverage probability of approximately 95%.

When reporting results against a conformance statement (Pass/Fail or the allocation of a class or level) then uncertainty of measurement is taken into account based on a non-binary acceptance which itself is based on the guard band being equal to the expanded uncertainty.

Where the result corrected for uncertainty falls within the tolerance of the conformance statement then the risk of the conformance statement being a false accept or false reject is up to 2.5% and SATRA will in this instance quote a Pass/Fail, class, or level.

Where the result corrected for uncertainty falls outside of the tolerance of the conformance statement then the risk of the conformance statement being a false accept or false reject is up to 50%. In this instance SATRA will not provide a Pass/Fail statement or a class or level but will include information in the notes in relation to the result obtained.

Where a report contains SATRA guidelines values then uncertainty of measurement values have been taken into account when determining the guideline values and as such are not considered when determining pass/ fail criteria.