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TECHNICAL REPORT

BIG MATS LTD UNIT 6 CAUSEWAY END LAWFORD CO11 2LH United Kingdom	SATRA reference:	SPC8355M9Q5	
		2349	1
	Report ID/Issue number:	36429/1	
	Your reference:		
	Date samples received:		
	Date(s) work carried out:	09/01/2024 to 10/01/2024	
	Date of report:	31/01/2024	

Testing Requirements


Testing of EVA mat in accordance with the test method in EN71-2:2011+A1:2004 clause 5.4

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Report Signed by:

John-Mark Edmundson


Report Signatory

Work Requested

Samples of material, see table 1, were received by SATRA, for testing in accordance with the method and requirements of EN 71 – 2: 2011+A:2014 Clause 4.4 Toys to be entered by a child only.

Testing was carried out to demonstrate the material is not highly flammable and meets the requirements of clause 4.1 General Requirements. The clause is also called by EN716-1:2017, for children’s cots.

Table 1 – Samples Received

Sample description as stated by the client	Approximate weight of sample
EVA/Foam Interlocking Tile	407g

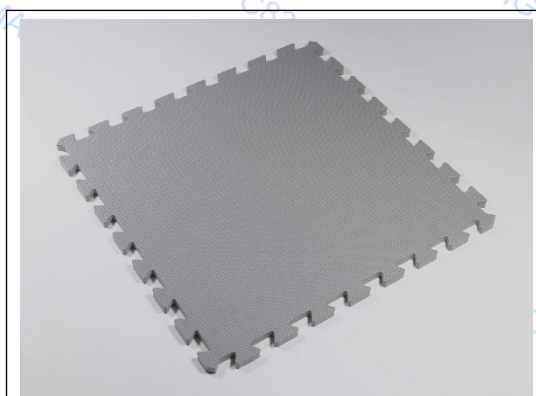


Figure 1

Conclusion

Standard	Clause / Property	Result
EN 71 – 2: 2011+A:2014	4.1 General Requirements	Pass
	4.4 Toys to be Entered by a Child	Pass (See Note B)

Testing Conditions

Conditioning of samples prior to testing: Minimum of 7 hours at 20°C, 65% rh

Burner: As detailed in EN ISO 6941: 2003 Annex A

Sample size: 610 × 100 mm

Position of sample holder: 45 ± 1° to the horizontal

Angle of burner: 0° (to vertical)

Position of burner: Vertical to sample

Distance between burner & specimen: 30 ± 2 mm

Height of marker thread 1: 50 mm (thread to be > 2 mm above surface of sample)

Height of marker thread 2: 550 mm (thread > 2 mm above surface of sample)

Flame height: 40 ± 3 mm

Burner pre-heat time: 2 mins

Flame Application: 10 ± 1) seconds

Air Speed within chamber: < 0.2 mm / s at start of test

Temperature within chamber: Between 10°C and 30°C

Humidity within chamber: Between 15% and 80% rh

Gas Type: Butane OR Propane

Pre-Conditioning of Samples

Sample was tested as received.

Test Results

EN 71-2: 2011 Test results

Clause / Test	Requirement	Test Results		UoM (See note A)	Result	
Clause 4.4 Toys to be Entered by a Child	The rate of flame spread shall be $\leq 30 \text{ mm.s}^{-1}$ or shall self-extinguish before the second marker thread is severed.	Test Area / Direction	Top up	Base Up	$\pm 0.17\text{s}$ $\pm 0.3\text{mm}$	Pass See Note
		Did sample ignite?	Yes	Yes		
	If the rate of flame spread is $\geq 20 \text{ mm.s}^{-1}$, there shall be no flaming debris or molten drips.	Was first marker thread severed?	Yes	No		
		Was second marker thread severed?	Yes	No		
	If the rate of flame spread is between 10 mm.s^{-1} and 30 mm.s^{-1} , both the toy and the packaging shall be permanently marked with the following warning: “Warning! Keep away from fire”	Time taken for flame to reach second marker thread (s)	153	17		
		Distance travelled between marker threads (mm)	60	N/A		
		Rate of flame spread (mm/s^{-1})	0.4	N/A		
	Flaming Debris?	Yes	Yes			
	Molten Drips?	Yes	Yes			

Additional Information / Notes

Note A – ‘UoM’ denotes estimated Uncertainty of Measurement for stated test results. This uncertainty value is based on a standard uncertainty multiplied by a coverage factor $k = 2$, which provides for a confidence level of approximately 95%

Note B: Material meets the requirement, but is designed for a child to play on, rather than enter. During testing it was noted that smoke was produced.

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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.

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