

Customer details: Le Mark Self Adhesives Ltd
Unit 1 Houghton Hill Industries
Sawtry Way
Houghton
Cambridgeshire
PE28 2DH

SATRA reference: FLO0240882/1549/6

Your reference: 000823

Date of report: 16 December 2015

Samples received: 4 December 2015

For the attention of: Keelan Cochrane

Date(s) work carried out: 4 December 2015 – 10 December 2015

TECHNICAL REPORT

Subject: Testing of one sample described by the customer as 'Two Tone' to BS EN 13501-1:2007+A1:2009.

Conditions of Issue:

This report may be forwarded to other parties provided that it is not changed in any way. It must not be published, for example by including it in advertisements, without the prior, written permission of SATRA.

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

Tests marked \neq fall outside the UKAS Accreditation Schedule for SATRA. All interpretations of results of such tests and the comments based upon them are outside the scope of UKAS accreditation and are based on current SATRA knowledge.

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.

Please note uncertainty of measurement has not been applied to the results in this report. SATRA uncertainty of measurement values are available on request.

Report signed by: Philip Weal
Position: Senior Technician
Department: Furniture and Floor Coverings

1. Introduction

This classification report defines the classification assigned to reference 'Two Tone', in accordance with the procedures given in BS EN 13501-1:2007+A1:2009. Testing has been conducted and completed by SATRA Technology Centre Ltd at the request of Le Mark Self Adhesives Ltd – the Sponsor. All SATRA Reports are held in the relevant file associated with this report and this classification report is issued under the SATRA agreement.

2. Details of Classified Products

2.1 General

With regards to the property assessed, the product 'Two Tone' is defined as being suitable for floor covering applications.

TECHNOLOGY

Description of Test Specimens

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		DANCE FLOORING	
Product reference of flooring system		H.S. CODE 39181090	
Colour reference		BLACK / WHITE	
Name of Manufacturer		RMG POLYVINYL INDIA LIMITED	
Overall weight per unit area		1600 GSM	
Overall Thickness		1.20 MM	
Floor covering	Configuration	N/A	
	Layer 1 (Silicon / Quartz Particulate)	Product Reference	N/A
		Generic Type	N/A
		Name of Manufacturer	N/A
		Application Rate	N/A
		Application method	N/A
		Specific gravity	N/A
		Colour reference	N/A
		Flame Retardant Details	N/A
	Layer 2 (Wear Layer)	Product Reference	DANCE FLOORING
		Generic Type	PVC CUSHION FLOORING WITH GLASS
		Name of Manufacturer	RMG POLYVINYL INDIA LIMITED
		% Composition	30%
		Weight per unit area	325 GSM
		Thickness	0.25 MM
		Trade name of flame retardant	(NO SPECIAL ADDITIVES ADDED)
		Generic form of flame retardant	
	Amount of flame retardant		
	Layer 3 (Printed film)	Product Reference	N/A
		Generic Type	N/A
		Name of Manufacturer	N/A
		% Composition	N/A
		Weight per unit area	N/A
		Thickness	N/A
		Flame Retardant details	N/A
		Generic form of flame retardant	N/A
	Amount of flame retardant	N/A	
	Glass fibre sheet incorporated in backing layer	Product Reference	DANCE FLOORING
		Generic Type	GLASS FIBER TISSUE IMPREGNATED WITH
		Name of Manufacturer	GFT IMPORTED BY RMG POLYVINYL INDIA
		Thickness	0.30 MM
Weight per unit area		325 GRAM PER SQ. MTR.	
Flame Retardant details		(NO SPECIAL ADDITIVES ADDED)	
Generic form of flame retardant			
Amount of flame retardant			

Floorcovering	Backing Material (Calendared Layer)	Product Reference	DANCE FLOORING
		Generic Type	BACKING LAYER BY COATING PROCESS
		Name of Manufacturer	RMG POLYVINYL INDIA LIMITED
		Thickness	0.60
		Weight per unit area	900 GSM
		Flame Retardant details	(NO SPECIAL ADDITIVES ADDED)
		Generic form of flame retardant	
		Amount of flame retardant	
Adhesive		Product Reference	NO ADHESIVE USED
		Generic Type	
		Name of Manufacturer	
		Density (20°C)	
		Colour	
Substrate		Product reference	'Cembrit HD'
		Generic type	Fibre cement board
		Name of supplier	Clarkes of Walsham Ltd
		Thickness	8 ± 2mm
		Density	1800 ± 200 kg/m ³
Brief Description of the manufacturing process		FLOORING IS PRODUCED ON STORK SPREAD COATING LINE	

Test reports/extended application reports & test results in support of classification

3.1 Test Reports/extended application reports

Testing Laboratory	Name of Sponsor	Test Reports / extended application reports	Test method / extended application rules & date
SATRA Technology Centre Ltd	Le Mark Self Adhesives Ltd	FLO0240882/1549/4	BS EN ISO 9239-1:2010
SATRA Technology Centre Ltd	Le Mark Self Adhesives Ltd	FLO0240882/1549/5	BS EN ISO 11925-2:2010

3.2 Test Results

Test method & test number	Parameter	No. tests	Results	
			Continuous parameter – mean	Compliance with Bfl-s1 parameters
EN ISO 9239-1	Critical flux (kW/m ²) or HF-30 (kW/m ²)	3	9.55 10.71 10.45 Mean = 10.24	Compliant
	Smoke (%.min)		135.31 117.21 120.82 Mean = 124.45	
EN ISO 11925-2 (15s exposure - surface)	F _s (mm)	6	90	Compliant
	Flaming Droplets / particles		None	

4. Classification and field of application

4.1 Reference of application

This classification has been carried out in accordance with clause 11 of BS EN 13501-1:2007+A1:2009.

4.2 Classification

The product 'Two Tone', in relation to its reaction to fire behaviour is classified:

B_{fl}

The additional classification in relation to smoke production is:

s1

The format of the reaction to fire classification for flooring is:

Fire Behaviour	Smoke Production
B_{fl}	s 1

i.e **B_{fl} – s1**

Reaction to Fire classification: B_{fl} – s1

.3 Field of application

This classification is valid for the following end use applications:

- i) Flooring applications, used over and above any substrate with a density equal to or greater than 1800 Kg/m^3 , having a minimum thickness of 6 mm and a fire performance of A2 or better.
- ii) Installed with or without adhesive

This classification is also valid for the following product parameters:

Products:	'Two Tone'
Product thickness:	1.20 mm
Product weight per unit area:	1.6 kg/m^2
Colour:	Any variation allowed
Composition:	No variation from the described product

TERMS AND CONDITIONS OF BUSINESS

1. GENERAL

Work done or services undertaken are subject to the terms and conditions detailed below and all other conditions, warranties and representations, expressed or implied are hereby excluded.

2. PRICES

Prices are based on current material and production costs, exchange rates, duty and freight and are subject to change without notice.

3. DELIVERY ESTIMATES

Delivery estimates are made in good faith and date from receipt of a written order and full information to enable us to proceed. While SATRA or its subsidiaries (hereafter referred to as "SATRA") make every effort to fulfil them, such estimates are subject to unforeseen events and if not maintained, cannot give rise to any claim. Offers "ex stock" are subject to prior sale.

4. CANCELLATION AND RETURNS

Cancellation of orders for goods, services, training or consultancy is only acceptable by prior agreement of SATRA and a charge will normally be made.

5. CLAIMS

Claims for errors, shortages etc should be notified within 10 days of date of receipt. In the event of goods damaged in transit, packing materials should be retained for examination; otherwise no liability can be accepted.

6. PAYMENT TERMS

Payment terms are net 21 days from date of invoice. Failure to comply with the terms of payment may result in delayed delivery of goods and services and a review of the Customer's credit account. Should the customer become subject to an administration order, or becomes bankrupt or goes into liquidation, SATRA has a right to cancel any contract and discontinue any work. SATRA reserves the right to adjust US Dollar and Euro sales price where customer exceeds credit terms and where the exchange rate has moved more than 10% since invoicing.

7. RETENTION OF TITLE

All goods remain the property of SATRA until paid in full. Under no circumstances will a customer's purchase order override SATRA's Retention of Title clause. In the case of software, the ownership of the software remains with SATRA. Payment of invoices in full will entitle the customer to use the software under licence until (a) they cease to be a member of SATRA or (b) they cease trading. In both instances, the licence shall then revert to SATRA.

8. GUARANTEE

All goods manufactured by SATRA are guaranteed both as regards material and workmanship. Any part returned carriage paid, within twelve months from date of supply and found defective, will be repaired or replaced at SATRA's option free of charge. SATRA admits no liability for loss, damage or delay consequent on any defect in any goods supplied by SATRA.

9. TEST REPORTS

Results given in test reports refer only to samples submitted for analysis and tested by SATRA. 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 Customer as a result of information supplied in a test report.

10. TEST SAMPLES

Unless otherwise agreed in advance, test samples will be disposed of 6 weeks after the date of the final report. If required, samples can be returned at the Customer's expense.

11. RESPONSIBILITY

Every effort is made to ensure accuracy in description, drawings and other information in correspondence, catalogues, etc but no warranty is given in this respect and SATRA shall not be liable for any error therein. SATRA carries out all tests and/or advises only on the basis that the same are carried out, made or given without any responsibility whether for negligence or otherwise. SATRA and its servants or agents will not be liable for any damage or loss direct or indirect of whatsoever kind, whether or not the same results directly or indirectly from negligence on the part of SATRA or its servants or agents.

12. CONFIDENTIALITY

Unless specifically excluded in the terms of an individual contract between SATRA and its Customer, the following shall apply to all reports, advice, drawings, photographs, specifications or data:

- i. The above shall not be disclosed to third parties or used in litigation without the consent of SATRA.
- ii. Where SATRA has given consent to disclosure, the Customer shall draw the attention of the third party to these terms of business and the basis on which SATRA undertakes test, reporting and advising. The Customer shall indemnify SATRA for any failure to do so.
- iii. The above items are submitted to the Customer as confidential documents. Confidentiality shall continue to apply after completion of the business, but shall cease to apply to information or knowledge which may come into the public domain.

13. CONSTRUCTION AND ARBITRATION

The laws of England shall govern all contracts and the parties submit to exclusive jurisdiction of the courts of England, unless otherwise agreed.

Issue Date: 1st October 2009