

Customer details: Karndean Designflooring
Crab Apple Way
Vale Park
EVESHAM
Worcs
WR11 1GP

SATRA reference: FLO0251871 /1646_2

Your reference: NS0005551

Date of report: 10 February 2017

Samples received: 11 July 2016

For the attention of: Adrian Shortland

Date(s) work carried out: 11 July 2016 –
25 January 2016

TECHNICAL REPORT

Subject: Testing of one product described by the customer as "LooseLay" against the requirements of BS EN ISO 10582:2012#.

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 It must not be published, for example by including it in advertisements, without the prior, written permission of SATRA.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 # 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: Mandy de Wet
Position: Technologist
Department: Furniture and Floor Coverings



TESTING OF ONE PRODUCT DESCRIBED BY THE CUSTOMER AS "LOOSELAY" AGAINST THE REQUIREMENTS OF BS EN ISO 10582:2012#.

As requested by Karndean Designflooring, SATRA have conducted an assessment of the samples of material referenced as "LooseLay" submitted to assess the suitability for use and classification, as detailed below.

SUMMARY

The sample submitted referenced "LooseLay" has satisfied the general requirements of BS EN ISO 10582:2012# Heterogeneous poly(vinyl chloride) floor coverings – Specification. Therefore being classified as class 33/42. (Heavy -Commercial / General –Light Industrial). The full results are given below.

SAMPLE SUBMITTED

Sample reference: "LooseLay" ⁽¹⁾
 Description: "LLT-204"
 Appearance:



Date received: 11 July 2016
 Date conditioned: 11 July 2016
 Testing commenced: 15 November 2016
 Testing completed: 25 January 2017
 Testing conducted by: Mandy de Wet, Reece Johnson, Callum Morgan and Hilary Herbert

Notes:

- (1) The information supplied by the customer. Not verified by SATRA.
- (2) The nominal values are the calculated average values unless stated.
- (3) "LooseLay" is identified as type 1 wear layer Binder content of minimum 80%, as declared by the customer.
- (4) Planks were received with length and widths different (>400mm).
- (5) Nominal length of 610mm and width of 500mm supplied by the customer.
- (6) Nominal thickness of 4.5mm supplied by the customer.
- (7) All test method results have been assessed against the requirements of BS EN ISO 10582:2012# Heterogeneous poly(vinyl chloride) floor coverings – Specification.

TESTS CARRIED OUT

- BS EN ISO 105:B02:1999 Colour fastness to artificial Daylight (Xenon Arc Method).
- ISO 4918:2016 Resilient, textile and laminate floor coverings -- Castor chair test.≠
- BS EN ISO 23997:2012 (ISO 23997:2007) -Identical. Resilient floor coverings. Determination of mass per unit area.≠
- BS EN ISO 23999:2012 (ISO 23999:2012) -Identical. Resilient floor coverings. Determination of dimensional stability and curling after exposure to heat.≠
- BS EN ISO 24340:2012 (ISO 24340:2006) -Identical. Resilient floor Coverings. Determination of thickness of layers.≠
- BS EN ISO 24342:2012+A1:2012 (ISO 24342:2007)-Identical. Resilient and textile floor-coverings. Determination of side length, edge, straightness and squareness of tiles.
- BS EN ISO 24343-1:2012 (ISO 24343-1:2007) -Identical. Resilient and laminate floor coverings. Determination of indentation and residual indentation.
- BS EN ISO 24344:2012 (**ISO 24344:2008**) Method A. -Identical. Resilient floor coverings. Determination of flexibility and deflection.
- BS EN ISO 24346:2012 (ISO 24346:2006) -Identical. Resilient floor coverings. Determination of overall thickness.≠

RESULTS

Table 2. General Requirements - BS EN ISO 10582:2012 #

Test method	Property	Requirements	Results	Pass/Fail
BS EN ISO 24342	Side Length (mm)	Deviation of ≤ 0.15% of nominal length up to 0.5mm maximum	610.2mm (0.03%) ⁽⁵⁾ 500.2mm (0.04%) ⁽⁵⁾	Pass ⁽⁵⁾
	Squareness and straightness for side length (mm)	Deviation allowed at any point	Greatest found	Pass ⁽⁵⁾
	≤ 400mm > 400mm > 400mm (for heat welded)	≤ 0.25 mm ≤ 0.35 mm ≤ 0.50 mm	- 0.15 mm -	
BS EN ISO 24346	Overall thickness (mm) Average	Nominal value + 0.13mm and - 0.10mm	Average = 4.68 mm ⁽⁶⁾ (+0.13mm)	Pass ⁽⁶⁾
	Individual results	Average value ± 0.15mm	± 0.06 mm	Pass
BS EN ISO 23997	Total mass per unit area (average) (g/m ²)	Nominal value + 13% and -10%	Average =7476.4 (0.0 %) ⁽²⁾	Pass ⁽²⁾
BS EN ISO 23999	Dimensional stability after exposure to heat (%)		Average	Pass
	Sheets and tiles (intended for welding)	≤ 0.40 %	MD 0.05% AMD 0.03%	
	Tiles (intended for dry joint laying)	≤ 0.25 %		
	Curling after exposure to heat			Pass
	Sheets and tiles (intended for welding)	≤ 8 mm	Mean 0.2mm	
	Tiles (intended for dry joint laying)	≤ 2 mm		

BS EN ISO 24344	Flexibility Diameter of mandrel 20 mm	No cracking using a 20mm mandrel. Products that shows signs of cracking use a 50mm mandrel as well	No Cracking using 20mm mandrel No Cracking using 50mm mandrel	Pass
BS EN ISO 24343-1	Residual Indentation (Average)	≤ 0,1mm	0.09	Pass
ISO 4918	Effect of Castor Chair	After 25,000 cycles, no delamination shall occur. No disturbance to the surface other than a slight change in appearance.	No damage	Pass
BS EN ISO 105 – B02	Colour fastness to light	minimum blue wool scale 6 (≥ 3 grey scale)	7	Pass

Table 3 – Classification property results

Test method	Property	Requirements	Results	Class
BS EN ISO 24346	Overall thickness (mm)	See Table 4	4.7 mm	Class 33/42
BS EN ISO 24340	Thickness of wear layer (mm)	See Table 4	0.55 mm	Class 33/42

Table 4.

Classification requirements for level of use - Minimal

Class	Symbol	Level of use	Thickness of wear layer, nominal value		Nominal overall thickness	Seam strength N/50mm EN 684
		Domestic	Type I ⁽³⁾	Type II ⁽³⁾	All Types	
21		Moderate/light	0.15	0.40	1.0	No Requirement
22		General/medium	0.20	0.50	1.5	
22+		General	0.20	0.50	1.5	
23		Heavy	0.30	0.65	1.5	
		Commercial				
31		Moderate	0.30	0.65	2.0	When welded in accordance with the manufacturer's instructions Average value ≥ 240 Individual values ≥ 180
32		General	0.40	0.80	2.0	
33		Heavy	0.55	1.00	2.0	
34		Very Heavy	0.70	1.50	2.0	
		Light Industrial				
41		Moderate	0.40	0.80	2.0	
42		General	0.55	1.00	2.0	
43		Heavy	0.70	1.50	2.0	

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Issue Date: 1st October 2009