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Customer: R - Tek Manufacturing Limited

Unit 1

Hamiltownsbawn Industrial Estate

Armagh

County Armagh

BT60 1HW

Report Date:

SATRA Ref:

20 April 2010

FLO0182952/1009/2

Samples received:

1 March 2010

Contact: Peadar Hurson

TECHNICAL SERVICES REPORT

Subject: Testing of materials to BS EN 433:1994

Your reference:

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 It must not be published, for example by including it in advertisements, without the prior, written permission of SATRA.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.

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Report signed by: Jacqueline Glasspool Position: Business area manager

Department: Flooring

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RESIDUAL INDENTATION ACCORDING TO BS EN 433: 1994

As requested by R – Tek Manufacturing Limited, we have assessed the samples of floor coverings submitted against the requirements stipulated BS EN 649: 1997, as detailed below.

SAMPLE SUBMITTED

Reference: 7mm Textured, 5mm Studded, 5mm Slate

Description: Profiled PVC floor covering

Colour: Black, Grey

Appearance:



7mm Textured



5mm Studded



5mm Slate

Date received: 1st March 2010
Testing completed: 31st March 2010
Testing conducted by: Mandy De Wet

TESTS CARRIED OUT

BS EN 433: 1994 - Resilient floor coverings - Determination of residual indentation of static loading.

Note(s):

1) The results have been assessed in accordance with BS EN 649: 1997, Resilient floor coverings – Homogenous and heterogeneous polyvinyl chloride floor coverings – Specification.

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RESULTS

Tabulated below is the overall average result for the property assessed according to guidelines set out in BS EN 649: 1997.

Table 1. Residual Indentation assessment according to BS EN 433.

Sample	Test method	Property	Requirements	Results (mm)(2dp)
7mm	BS EN	Residual Indentation	Average value	0.06
Textured	433: 1994	(after static loading)	≤ 0.10mm	
5mm	BS EN	Residual Indentation	Average value	0.07
Studded	433: 1994	(after static loading)	≤ 0.10mm	
5mm Slate	BS EN 433:1994	Residual Indentation (after static loading)	Average value ≤ 0.10mm	0.11

See appendix 1.0 for raw data.

COMMENTS

BS EN 433: 1994 Residual Indentation.

The method of tests determines the residual indentation produced in a resilient floor covering after the application and removal of a constant load. Two measurements were made to determine the difference between the initial thickness and the thickness measured 150 minutes after removal of the specified load. Three specimens have been tested to calculate the mean value for residual indentation. The specification requires a maximum compression of 0.10 mm after 150 minutes removal of the specified load.

CONCLUSION

The samples referenced as "7mm Textured" and "5mm Studded" demonstrated a residual indentation of 0.06 mm and 0.07mm respectively. The samples submitted have therefore been able to satisfy the requirements set out in BS EN 649: 1997 – Specification.

The sample referenced "5mm Slate" demonstrated a residual indentation of 0.11mm therefore failing to meet the requirements set out in BS EN 649:1997 – Specification.

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Appendix 1.0

7mm Textured

Sample reference	Initial thickness (mm)	Thickness after 150 minutes load (mm)	Thickness after 150minutes recovery (mm)	Residual indentation (mm)	Average residual indentation (mm)
A	6.985	6.440	6.933	0.052	
В	6.924	6.481	6.858	0.066	0.061
С	6.989	6.481	6.924	0.065	

5mm Studded

Sample reference	Initial thickness (mm)	Thickness after 150 minutes load (mm)	Thickness after 150minutes recovery (mm)	Residual indentation (mm)	Average residual indentation (mm)
A	4.816	4.300	4.763	0.053	
В	4.790	4.066	4.704	0.086	0.073
С	4.800	4.015	4.721	0.079	

5mm Slate

	Sample reference	Initial thickness (mm)	Thickness after 150 minutes load (mm)	Thickness after 150minutes recovery (mm)	Residual indentation (mm)	Average residual indentation
H		5 (12)	4.071	5.462	0.0150	(mm)
-	A .	5.612	4.871	5.462	0.0150	
I	3	5.790	5.170	5.706	0.084	0.112
(5.581	4.864	5.480	0.101	

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TERMS AND CONDITIONS OF BUSINESS

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

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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.

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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.

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All goods remain the property of SATRA until paid in full. Under no circumstances will a customer's purchase order override our 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.

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- 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

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