

# TEST REPORT

**Intertek**

**REPORT NUMBER: GZ08020369-1**  
ORIGINAL ISSUE DATE: March 11, 2008

## EVALUATION CENTER

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## RENDERED TO

Vertex Stone Trading (Shanghai) Co., Ltd.  
9F Sheng Gao International Building, No 137 Xian Xia Road,  
Chang Ning District, Shanghai, China

## PRODUCT EVALUATED:

Allure Plank 6”X36”X3.8mmX0.3mm with ALX coating

## EVALUATION PROPERTY:

Residual Indentation, Chemical Resistance, Wear Resistance.

**Report of Testing Allure Plank 6”X36”X3.8mmX0.3mm with ALX  
coating / 3.8/0.3mm Code: TW234 for Performance according to  
the following test method:  
BS EN 433:1994, EN 423:2001(E) BS EN 660-2:1999, BSEN 649:  
1997,**

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## 1 Table of Contents

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1	Table of Contents .....	2
2	Introduction .....	3
3	Test Samples .....	3
	3.1. SAMPLE SELECTION.....	3
	3.2. SAMPLE AND ASSEMBLY DESCRIPTION .....	3
4	Testing and Evaluation Methods .....	3
	4.1. CONDITIONING .....	3
	4.2. SPECIMEN PREPARATION .....	3
	4.3. TEST STANDARD 1.....	3
	4.4. TEST STANDARD 2.....	4
	4.5. TEST STANDARD 3.....	4
	4.6. TEST STANDARD 4.....	4
5	Testing and Evaluation Results .....	5
	5.1. RESULTS AND OBSERVATIONS .....	5
	5.2. EXAMINATION OF RESULTS .....	5
6	Conclusion .....	6
	Appendix A Product Photos .....	1 page

## 2 Introduction

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Intertek Guangzhou had conducted testing for Vertex Stone Trading (Shanghai) Co., Ltd. on Allure Plank 6”X36”X3.8mmX0.3mm with ALX coating / 3.8/0.3mm Code: TW234 to evaluate Residual Indentation, Chemical resistance, Wear Resistance. Testing was conducted in accordance with client’s requirements, and using above standards as guide. This evaluation began Feb 21, 2008 and was completed March 5, 2008.

## 3 Test Samples

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### 3.1. SAMPLE SELECTION

Samples were submitted to Intertek directly from the Applicant and manufactured by Zhangjiagang Elegant Plastics Co., Ltd, located at Hexing Street, Jinfeng Town, Zhangjiagang City, Jiangsu Province, China. Samples were received at the Evaluation Center on March 4, 2008.

### 3.2. SAMPLE AND ASSEMBLY DESCRIPTION

Model No.	Product description
3.8/0.3mm Code: TW234	Overall size: 6”X36”X3.8mm Abrasion resistance layer: thickness 0.3mm Density 1884.93 kg/m <sup>3</sup> ±50

## 4 Testing and Evaluation Methods

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### 4.1. CONDITIONING

Before be testing in accordance with EN 433, EN 423 and EN 660-2, condition the test pieces at lab more than 24 hours and constant mass already be reached

### 4.2. SPECIMEN PREPARATION

For EN 433, take a representative sample from the available material. Take three test pieces with a surface area of at least 3500mm<sup>2</sup>cut from a roll or different tiles.

For EN 660-2, take a representative sample from the available material.

For EN 423, take one test pieces in the colour to be used with a surface area of at least 3000mm<sup>2</sup>for each stain to be tested.

Take three specimens of approximately (100x100) mm, at equal distances across the sample, the distance between the outer edge of the sample and the nearest edge of the specimen being at least 50mm, cut a circular hole in the centre of each specimen to adjust the specimen in the centre of the rotating table.

### 4.3. TEST STANDARD 1

BS EN 433:1994 resilient floor coverings – Determination of residual indentation after static loading

**4.4. TEST STANDARD 2**

EN 423:2001(E) Resilient floor coverings - Determination of resistance to staining

**4.5. TEST STANDARD 3**

BS EN 660-2:1999 Resilient floor coverings - Determination of wear resistance - Part 2: Frick - Taber test

**4.6. TEST STANDARD 4**

BSEN 649: 1997 Resilient floor coverings-Homogenous and heterogeneous polyvinyl chloride floor coverings Specification

## 5 Testing and Evaluation Results

### 5.1. RESULTS AND OBSERVATIONS

Item	Requirement-Test	Result - Remark	Verdict
Residual Indentation	<p>BS EN 433</p> <p>A test piece is subjected to a static loading, the thickness being measured before loading and after various recovery periods.</p> <p>The Residual indentation (average) shall be within 0.1mm according to requirement of BSEN 649</p>	<p>Residual indentation: 0.06 mm to 0.08mm</p> <p>Average: 0.07 mm</p>	P
Chemical Resistance	<p>EN 423</p> <p>Test chemical substances: Ethanol Solution, Acetone, Household ammonia, 10% Citric acid, Vegetable oil, Coffee, Tea, Catsup, Mustard, 10% Povidone iodine, #2B pencil, Wax crayon, Black paste shoe polish</p>	<p>10% Povidone iodine: Index 1</p> <p>Other substances: Index 0</p>	—
Wear Resistance	<p>BS EN 660-2</p> <p>A specimen testing on a horizontal, rotating holder table is sprinkled with abrasive grains and loaded with a pair of leather-clad abrading wheels, each of which is freely rolling round a horizontal axis.</p> <p><math>F_m</math> is the average mass loss in milligrams per 100 revolutions.</p> <p>The wear loss in cubic millimeters <math>F_v</math> is equal to the quotient of the final mass loss in milligrams and the density of the wear layer in grams per cubic centimeter.</p>	<p><math>F_m=0.9</math> mg</p> <p><math>F_v=0.45</math> mm<sup>3</sup></p>	—

### 5.2. EXAMINATION OF RESULTS

Unless otherwise stated in the report, all portions of each test were performed under continuous, direct supervision of the representative of Intertek Guangzhou.

## 6 Conclusion

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Refer to above results and observations.

### INTERTEK GUANGZHOU

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**Appendix A**  
**Product photos**



Front view



Back view

Remarks:

1. Wear Resistance (EN649): Group T is the best class and F is the least class. The result of the test is Class T.

**Table 2 — Classification requirements for wear groups**

Characteristic	Requirements for wear group				Test method
	T	P	M	F	
Thickness loss $\Delta l$ mm	$\Delta l \leq 0,08^{1)}$	$0,08 < \Delta l \leq 0,15$	$0,15 < \Delta l \leq 0,30$	$0,30 < \Delta l \leq 0,60$	prEN 660-1
Volume loss $F_v$ mm <sup>3</sup>	$F_v \leq 2,0^{1)}$	$2,0 < F_v \leq 4,0$	$4,0 < F_v \leq 7,5$	$7,5 < F_v \leq 15,0$	pr EN 660-2

<sup>1)</sup> If tested for verification.