

MANUFACTURER SUPPLIED TEST REPORT
LOCAL PRODUCT IDENTIFICATION: TITAN CLICKLOC

The following sample(s) was/ were submitted and identified on behalf of the client as:

Sample Name : VINYL FLOOR
SGS Ref. No. : XMHG1306001092FB
Test Performed : Selected test(s) as requested by applicant
Date of Receipt : Jun 19, 2013
Test Period : Jun 19, 2013 to Jul 03, 2013

Test result(s) : Please refer to the following page(s)
*****To be continued*****

Signed for and on behalf of
SGS-CSTC Co., Ltd.



Civi Huang
Xiamen Materials Lab Technical Supervisor

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Test Result Summary

No.	Test(s) Requested	Result(s)
1	ASTM E 662-12	/
2	ASTM E 648-10	CLASS I

Note: The test was carried out by a SGS laboratory.

Test 1: ASTM E 662-12

Test Conducted:

This test is conducted accordance with ASTM E 662-12 Specific optical density of smoke generated by solid or materials

I. Sample Description and Conditioning

Sample name (provided by sponsor):	VINYL FLOOR
Color:	Face: Brown Back: Black
Thickness (mm):	About 2
Density:	About 4.08 g/cm ²
Tested face:	Outer surface of the specimen
Precondition:	Temperature: 23±2 °C; Relative Humidity: 50±10%; Duration(≥48hours): 96 h

*****To be continued*****

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II. Test Result

These results relate only to the behaviour of the specimens of the product under the particular conditions of test; they are not intended to be the sole criterion for assessing the potential smoke obscuration hazard of the product in use.

Mode 1: Under non-flaming

Measurement or Observation	Specimen 1	Specimen 2	Specimen 3	Average Value
D _m , maximum specific optical density/occurrence time	275.95 (14min26s)	317.88 (9min08s)	294.61 (12min42s)	296.15
D _m (corr)	272.62	311.60	290.42	291.55

burning characteristics				
Combustion mode (Flaming/Non-flaming)	Non-flaming	Non-flaming	Non-flaming	---
Delamination (Occurrence time, if present)	No	No	No	---
Intumescence (Occurrence time, if present)	Yes (208 s)	Yes (220 s)	Yes (215 s)	---
Shrinkage (Occurrence time, if present)	No	No	No	---
Melting (Occurrence time, if present)	No	No	No	---
Collapse (Occurrence time, if present)	No	No	No	---

*****To be continued*****

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Mode 2: Under flaming

Measurement or Observation	Specimen 1	Specimen 2	Specimen 3	Average Value
D _m maximum specific optical density/occurrence time	257.25 (4min29s)	299.44 (5min09s)	367.03 (4min57s)	307.90
D _m (corr)	252.11	294.35	361.48	302.65

<i>burning characteristics</i>				
Combustion mode (Flaming/Non-flaming)	Flaming	Flaming	Flaming	---
Delamination (Occurrence time, if present)	No	No	No	---
Intumescence (Occurrence time, if present)	Yes (189 s)	Yes (196 s)	Yes (191 s)	---
Shrinkage (Occurrence time, if present)	No	No	No	---
Melting (Occurrence time, if present)	No	No	No	---
Collapse (Occurrence time, if present)	No	No	No	---

*****To be continued*****

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Test 2: ASTM E 648-10
Test conducted

This test was conducted in accordance with ASTM E648:2010 Standard test method for critical radiant flux of floor-covering systems using a radiant heat energy source.

Sample details

Color	Face: Brown Back: Black
Specimen size*	Length 940 mm Width 156 mm Thickness 2 mm

Remark: * — As per standard's requirement ,the specimen was split joint in the test.

Precondition	Temperature: 21±3°C Humidity: 50±5%, Duration: 96 h
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Test results

Distance (cm)	S1	S2	S3
	Time (minute: second)	Time (minute: second)	Time (minute: second)
5	7:38	8:16	7:23
10	-	-	-
15	-	-	-
20	-	-	-
25	-	-	-
30	-	-	-
35	-	-	-
40	-	-	-
45	-	-	-
50	-	-	-
55	-	-	-
60	-	-	-

*****To be continued*****

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Distance (cm)	S1	S2	S3
	Time (minute: second)	Time (minute: second)	Time (minute: second)
65	-	-	-
70	-	-	-
75	-	-	-
80	-	-	-
85	-	-	-
90	-	-	-
95	-	-	-
100	-	-	-
105	-	-	-
Extinguishing time	8:23	12:24	10:21
Burned distance (cm)	5	6	5

	S1	S2	S3	Average
Flame front distance at 10 min (cm)	5	5	5	5
Flame front distance at 15 min (cm)	-	-	-	-
Flame front distance at 20 min (cm)	-	-	-	-
Flame front distance at 25 min (cm)	-	-	-	-
Flame front distance at 30 min (cm)	-	-	-	-

	S1	S2	S3	Average	S	V
Critical radiant flux or radiant flux at 10 minutes (W/cm ²)	≥1.1	≥1.1	≥1.1	≥1.1	—	—

S—standard deviation; V—coefficient of variation

*****To be continued*****

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RATING:

Note: ASTM E648 is solely a test procedure and, as such, has no specific pass/fail criteria of its own. The below specification criteria are cited for reference purposes only, and may or may not apply to this tested product.

The National Fire Protection Association Life Safety Code 101, Chapter 10, Section 10.2.7 "Interior Floor Finish Testing and Classification", has a means of classifying materials with respect to critical radiant flux ratings when tested in accordance with NFPA 253, Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source, or ASTM E 648, Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.

International Building Code, Chapter 8, Interior Finishes, Section 804 "INTERIOR FLOOR FINISH", was classified in accordance with ASTM E648 or NFPA 253. Such interior finish materials shall be grouped in the following classes in accordance with their critical radiant flux ratings.

The classifications are as follows:

	Class I	Class II
Critical Radiant Flux, $watts/cm^2$	≥ 0.45	≥ 0.22

Since the tested sample received a Critical Radiant Flux $\geq 1.1watts/cm^2$, it would meet the requirement of Class I Interior Floor Finish.

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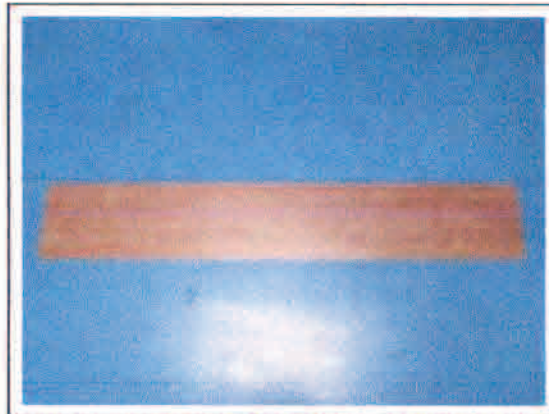
STATEMENTS:

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

The test results relate only to the specimens of the product in the form in which were tested. Small differences in the composition or thickness of the product may significantly affect the performance during the test and may therefore invalidate the test results. Care should be taken to ensure that any product, which is supplied or used, is fully represented by the specimens, which were tested.

The specimen was supplied by the sponsor and SGS-CSTC SHUNDE Branch was not involved in any selection or sampling procedure.

Photo Appendix:



SGS authenticate the photo(s) on original report only
***** End of Report *****

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