

TEST REPORT

Report No. : MAN:HL:1448006474

ISSUE DATE: 08-Dec-2023



FLORIM DECORATIVES GLOBAL PVT. LTD.
 809, THE SPIRE, NEAR SHITAL PARK BRTS,
 150 FT RING ROAD, RAJKOT GUJARAT-360007
 INDIA
CONTACT PERSON : HARSHIL SANTOKI

THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED AND IDENTIFIED BY/ON BEHALF OF THE CUSTOMER AS :

SAMPLE DESCRIPTION SPC (STONE PLASTIC COMPOSITE FLOORING)
END USE FLOORING
COUNTRY OF ORIGIN INDIA

LAB PROVIDED DETAILS:

CONDITION OF SAMPLE COMPLETE AND OK

THE LOCATION OF PERFORMANCE OF THE LABORATORY ACTIVITIES:

SGS GURUGRAM LABORATORY: EN 71-3: 2019 + A1:2021 - MIGRATION OF CERTAIN ELEMENTS &
 OTHER TEST SGS CHINA LABORATORY

SAMPLE RECD ON 01-Nov-2023 **TESTING PERIOD :** 06-Nov-2023 - 08-Dec-2023

SUMMARY OF TEST RESULT:

TESTS	PASS	FAIL	REMARKS
1. DIMENSIONAL STABILITY AND CURLING AFTER EXPOSURE TO HEAT			SEE RESULT
2. CASTOR CHAIR TEST			SEE RESULT
3. RESISTANCE TO IMPACT			SEE RESULT
4. OVERALL THICKNESS			SEE RESULT
5. PEEL STRENGTH			SEE RESULT
6. RESIDUAL INDENTATION			SEE RESULT
7. STAINING AND RESISTANCE TO CHEMICALS			SEE RESULT
8. SHEAR FORCE			SEE RESULT
9. SIDE LENGTH, EDGE STRAIGHTNESS AND SQUARENESS			SEE RESULT
10. THICKNESS OF WEAR LAYER			SEE RESULT
11. ANTI-SLIP PROPERTY			SEE RESULT
12. EN 71-3: 2019 + A1:2021 - MIGRATION OF CERTAIN ELEMENTS	P		

Remarks: P=Pass

F=Fail

TEST(S) RESULT & METHOD: PLEASE REFER TO NEXT PAGE(S). RESULTS APPLY TO THE SAMPLE AS RECEIVED

Per Pro SGS India Pvt. Ltd.



SANDIP BHUSHAN
TECHNICAL MANAGER
Authorized Signatory-Mechanical

Email your Test Report Related Enquiries at Feedback.HLT@sgs.com

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NON ACCREDITED TEST(S)

TEST RESULTS:

1. DIMENSIONAL STABILITY AND CURLING AFTER EXPOSURE TO HEAT:

Method: EN ISO 23999:2021

Test Condition: Specimen Size : 610mmx180mm
 Condition: (23±2)°C, (50±5)%RH, 24h→(80±2)°C, 360 ±¹⁵ min→(23±2)°C, (50±5)%RH, 24h
 Lab Environment Condition: : (23±2)°C, (50±5)%RH

TEST Name	TEST RESULT		REQUIREMENT
Dimensional Stability	X Direction	-0.00%	/
	Y Direction	-0.00%	
Curling initial	0.0mm		
Curling final	0.0mm		

Tested Item: SPC (STONE PLASTIC COMPOSITE FLOORING)

Note:

- 1. All test specimens were cut from the original samples.
- Dimensional Stability, % = (Dimension after heating - Dimension before heating)/ Dimension before heating×100.
- Testing has been subcontracted to SGS Approved lab.

2. CASTOR CHAIR TEST:

Method: EN ISO 4918:2016+Amd.1:2018

Test Condition: Cycles : 25000
 Load : 90kg
 Type of castors: : Type W
 Type of sample: : Resilient floor coverings

TEST Name	TEST RESULT	REQUIREMENT
Castor Chair Test	No visible damage or crazing found	/

Tested Item: SPC (STONE PLASTIC COMPOSITE FLOORING)

Note:

- Test samples were cut from original samples.
- Testing has been subcontracted to SGS Approved lab.

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3. RESISTANCE TO IMPACT:

Method: ASTM F1265-03a(2008)

Test Condition: Specimen Size : 150mm x 150mm
 Steel Cylinder Mass : 0.159kg
 Drop Height : 508mm
 Number of Drops : 4

TEST Name	TEST RESULT	REQUIREMENT
Resistance To Impact	No cracking observed	/

Tested Item: SPC (STONE PLASTIC COMPOSITE FLOORING)

Note:

- All test specimens were cut from the sample.
- Testing has been subcontracted to SGS Approved lab.

4. OVERALL THICKNESS:

Method: EN ISO 24346:2006 (R2015)

Test Condition: Condition the test pieces at a temperature of (23±2) °C and relative humidity (50±5) %for a minimum of 24 h.

TEST Name	TEST RESULT	REQUIREMENT
Overall Thickness	Average: 5.09 mm Maximum: 5.12 mm Minimum: 5.06 mm	/

Tested Item: SPC (STONE PLASTIC COMPOSITE FLOORING)

Note:

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5. PEEL STRENGTH:

Method: EN ISO 24345:2006

Test Condition: Specimen Size : 150mm x 150mm (X direction)
 180mm×50mm (Y direction)
 Loading rate : 100 mm/min

TEST Name	TEST RESULT	REQUIREMENT
Peel Strength	Long side (X): 65 N/50mm Short side (Y): 70 N/50mm	/

Tested Item: SPC (STONE PLASTIC COMPOSITE FLOORING)

Note:

- X direction-Long Side, Y direction- Short Side
- Testing has been subcontracted to SGS Approved lab.

6. RESIDUAL INDENTATION:

Method: EN ISO 24343-1:2007 (R2015)

Test Condition: Specimen Size : 60mm×60mm
 Diameter of indenter : 11.30mm
 Applied load : 500N
 Load time : 150 min
 Recovery time : 150 min

TEST Name	TEST RESULT	REQUIREMENT
Residual Indentation	0.12mm	/

Tested Item: SPC (STONE PLASTIC COMPOSITE FLOORING)

Note:

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7. STAINING AND RESISTANCE TO CHEMICALS:

Method: EN ISO 26987:2008

Test Condition: Specimen Size : 300mm×180mm

TEST RESULT

Sr No.	Stain agent	Contact Time	Result (Index)	Contact time	Result (Index)
1	Acetone	2h	0	--	--
2	Coffee (120g coffee per litre of water)	2h	0	--	--
3	Sodium hydroxide 25% solution	2h	0	--	--
4	Hydrogen peroxide 30% solution	2h	0	--	--
5	Black shoe polish	2h	0	--	--

Tested Item: SPC (STONE PLASTIC COMPOSITE FLOORING)

Remark: According to ISO 26987:2008 table 1, index is interpreted and presented as follows:

Index	Effect of test after cleaning/abrasion
0	Not affected
1	Slight
2	Moderate
3	Severe

Note: Testing has been subcontracted to SGS Approved lab.

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8. SHEAR FORCE:

Method: EN 432:1994

Test Condition: Specimen Size : 100mm×50mm
Loading rate: : 100mm/min

TEST Name	TEST RESULT	REQUIREMENT
Shear Force	Long side (X): 3083 N Short side (Y): 3594 N	/

Tested Item: SPC (STONE PLASTIC COMPOSITE FLOORING)

Note:

- All test specimens were cut from the sample
- Testing has been subcontracted to SGS Approved lab.

9. SIDE LENGTH, EDGE STRAIGHTNESS AND SQUARENESS:

Method: EN ISO 24342:2018

Test Condition: Condition the test pieces at a temperature of (23±2) °C and relative humidity (50±5) % for a minimum of 24 h.

TEST Item	Length	Width	Straightness	Squareness
Spc (Stone Plastic Composite Flooring)	Average.: 1219.72mm Maximum: 1219.83mm Minimum: 1219.66mm	Average.: 180.06mm Maximum: 180.15mm Minimum: 180.02mm	0.10 mm	0.05 mm

Note:

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10. Thickness of Wear Layer:

Method: EN ISO 24340-2006(R2015)

Test Condition: Specimen Size : 10mm×25mm
 Precondition: : (23±2)°C, (50±5)%RH for 24h.
 Magnification: : 50x

TEST Name	TEST RESULT	REQUIREMENT
Thickness of Wear Layer	Average: 0.28mm Maximum: 0.29mm Minimum: 0.27mm	/

Tested Item: SPC (STONE PLASTIC COMPOSITE FLOORING)

Note:

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11. Anti-Slip Property:

Method: DIN 51130:2014-02

Test Condition: Specimen Size : 600mm×180mm
 Testing Surface Size : 1200mm×540mm
 Magnification: : 50x

Test Name	TEST RESULT	Classification
Anti-Slip Property (oil-wet ramp test)	Critical angle of inclination: 9.4°	R9

Tested Item: SPC (STONE PLASTIC COMPOSITE FLOORING)

Classification of oil-wet ramp test:

Classification	Angle (degrees)
R9	6°≤X≤10°
R10	10°<X≤19°
R11	19°<X≤27°
R12	27°<X≤35°
R13	>35°

Note:

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12. EN 71-3: 2019 + A1:2021 - MIGRATION OF CERTAIN ELEMENTS:

METHOD: With reference to EN71-3: 2019 + A1:2021. Analysis of general elements was performed by ICP-OES.

Chromium (III) was obtained by calculation, Chromium (VI) was analyzed by IC-UV/VIS / IC-TLD / LC-ICP-MS / LC-DAD / IC-ICP-MS. Organic Tin was analyzed by GC-MS.

Category III Scrapped-off toy material:

Test Item	Result (mg/kg)	Reporting Limit (mg/kg)	Permissible Limit (mg/kg)
Mass of trace amount (mg)	--	--	--
Soluble Aluminium (Al)	57.2	50	28130
Soluble Antimony (Sb)	Not Detected	10	560
Soluble Arsenic (As)	Not Detected	10	47
Soluble Barium (Ba)	Not Detected	50	18,750
Soluble Boron (B)	Not Detected	50	15,000
Soluble Cadmium (Cd)	Not Detected	5	17
Soluble Chromium (III) # (Cr (III))	Not Detected	5	460
Soluble Chromium (VI) # (Cr (VI))	Not Detected	0.02	0.053
Soluble Cobalt (Co)	Not Detected	10	130
Soluble Copper (Cu)	Not Detected	50	7,700
Soluble Lead (Pb)	Not Detected	10	23
Soluble Manganese (Mn)	Not Detected	50	15,000
Soluble Mercury (Hg)	Not Detected	10	94
Soluble Nickel (Ni)	Not Detected	10	930
Soluble Selenium (Se)	Not Detected	10	460
Soluble Strontium (Sr)	Not Detected	50	56,000
Soluble Tin (Sn)	Not Detected	4.9	180,000
Soluble Organic Tin [^]	Not Detected	--	12
Soluble Zinc (Zn)	Not Detected	50	46,000
Conclusion	Pass	--	--

Tested Item: SPC (STONE PLASTIC COMPOSITE FLOORING)-Grey Part

Note:

- mg/kg = milligram per kilogram
- 1% = 10000 mg/kg = 10000 ppm
- # The test result of soluble chromium (III) and chromium (VI) were derived from soluble chromium screening and then confirmation test for soluble chromium (III) and soluble Chromium (VI) on component with soluble chromium exceeding the screening limit of 0.02 mg/kg soluble Cr.
- ^ The test result of soluble organic tin was derived from soluble tin screening and then confirmation test for soluble organic tin on component exceeding the screening limit of 4.9 mg/kg soluble Sn.
- Testing has been performed on selected components as per customer request.
- Test has been sub-contracted to ISO/IEC 17025 accredited laboratory.
- Above all testing has been performed as per customer request.



Sample as Received

