

XPS MEGA SOUND

Extreme polymer stone core

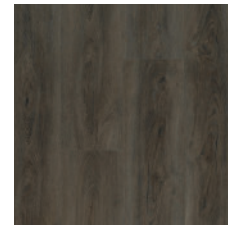
XPS+PAD



Copper Brown



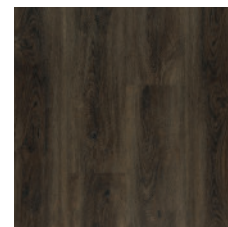
Nickel Gray



Steel Gray



Aluminum Gray



Carbon Brown



Cobalt Brown



XPS MEGA SOUND

Extreme polymer stone core

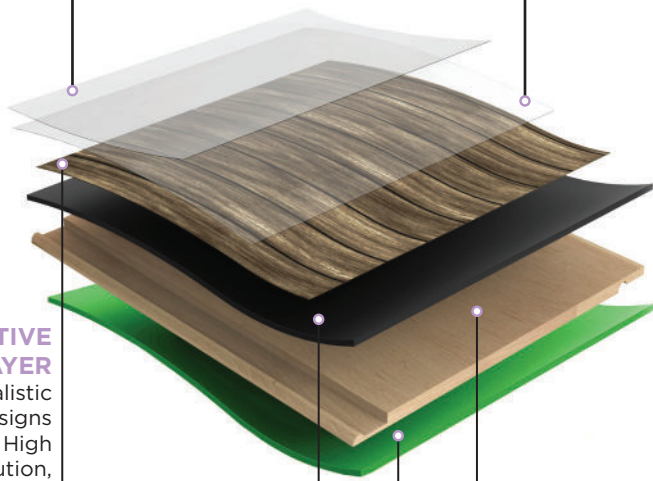
XPS+PAD

UV SURFACE COAT

UV-cured coating that inhibits most bacteria, easy to clean, prevent heavy discoloration.

PROTECTIVE WEAR LAYER (0.55 mm/22 MIL)

Prevents against excessive wear, tear resistance, and provides superior stain protection. Exclusive Registered Emboss.



DECORATIVE HD LAYER

Realistic designs impress in High Resolution, creating a unique natural style.

VINYL + LAYER

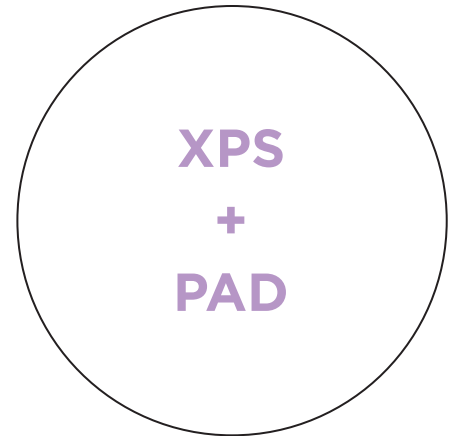
Extra layer added to maintain floor stability and extra comfort.

XPS COMPOSITE CORE

Extruded 100% waterproof core, that prevents expansion and contraction, absorbs subfloor imperfections, with glueless installation.

IXPE CUSHION PAD (1.0mm)

Provides sound reduction, feet comfort, and easier installation.



Phthalates Free
No VOC



Comfort
Layer



Extreme Polymer
Core



Dimensionally
Stable



22 MIL (0.55mm)
Wear Layer



Angle Click
System



Long
Plank



Transition
Moldings



Registered
Emboss



Micro-Bevel
Edges



Lifetime
Warranty



Limited
Warranty

DATA SHEET MEGA SOUND

	▼ METHOD	▼ PARAMETERS	▼ NORM REQUIREMENTS	▼ VALUES
Technical Data				
Total Thickness				7.5mm
XPS Multi Layer				5.0mm
100% Virgin PVC Layer				1.5mm
Underlayment Thickness				1.0mm
Top Layer				0.55mm
Plank Width				9.37" / 238mm
Plank Length				60" / 1522mm
Units per Box				8
SF per Box				31.2
Locking System				Valinge 2G
Class	EN 13329			32
Warranty		Residential(structural)	See warranty for conditions	Lifetime
Warranty		Light Commercial(struct)	See warranty for conditions	10 Years
Wear Class	EN 13329			22 MIL
Impact Resistance Big Ball	EN 13329		IC 2	2006+A1:2008, Annex F
Scratch Resistance	EN 438-2, 14		Charge>=3.0N	8,0N
Staining	EN 438-2, 15	Group 1,2	Class 5	Class 5
		Group 3	Class 4	Class 5
		Group 4		Class 4
Light Fastness	EN438-2, 16	Bleu reference	Class 6	>6
Burning Cigarette	EN438-25, 18		Class 4	Class 5
Dimensional Variations	NF B 54-011	Variation length AND width		<=0,10%
Emission of Formaldehyde	EN 717-1			<0.22 mg/m ³
A-Static	EN 1815	Charge human body		<=2,0kV
		23°C and 25% rel.Humidity		
Slip Resistance	EN 13893			DS
Thermal Resistance	ISO 8302			0.040 m ² K/W
Underfloor Heating		Not Suitable	Ask for specific information	Not Suitable
Fire Classification	ETN ISO 9239-1			Cf1
	BS 476,7			Class 1
	DIN 4102,14			B1

INSTALLATION INSTRUCTIONS

PARKAY XPS Mega Sound Installation Instructions/Warranty

BEFORE YOU START

1. Read Parkay Floors installation instructions before beginning.
2. Product cannot be used for exterior applications.
3. PARKAY XPS FLOORING has a patented locking system making it ideal for a floating installation. This product must be glued down when used for light traffic commercial applications.
4. Avoid constant exposure to excessive temperatures or direct sunlight for extended periods of time, since this might cause planks to pick, separate or decolorate. Please consider these exposures when choosing your product. Parkay recommends the use of shades.
5. PARKAY XPS FLOORING does not need to be acclimated if stored and installed in a temperate-controlled environment, maintain between 60°F and 85°F. Additional acclimation must be considered when temperatures mentioned above are not met. Store flat and fully supported during shipping and storage. It is not necessary to remove material from packaging while acclimating. Allow the product to condition in the room where installation is to take place at a constant temperature between 60°F and 85°F or 18°C – 29°C, for a period of 48 hours prior to installation.
6. Slight variations in color and structure are designed to enhance the natural appearance of the product. Mixing the planks creates a more uniform appearance. Make sure to shuffle planks from different cartons prior to installation.
7. Check PARKAY XPS FLOORING for possible defects prior to the installation. Complaints can only be accepted before installation. Parkay Floors® will not be responsible, or will compensate for any installation, if the floor was installed having an obvious or even a minor visual defect.
8. In facilities where walkers, wheelchairs (i.e.), residential and or with extended care use, or in facilities with movement of heavy displays, racks, dentist chairs, etc. These types of installations may exert extreme stress and compromise the locking system.
9. Entryways must always be covered with walk off mats and rolling chairs with chair mats.

10. Content on the subfloor must not exceed 5 lbs./1000ft²/24-hr (ASTMF2170), for this product to be installed.
11. Always cover furniture feet with proper materials.
12. Fixed cabinets or heavy objects cannot be installed when performing a floating installation.
13. Do not install this product over carpet.
14. Underlayment is not necessary for collections carrying an attached padding.
15. Transition moldings are required to separate any area exceeding 2,500 square feet or 50 lineal feet.

THE SUBFLOOR

1. Although PARKAY XPS FLOORING planks are water/moisture proof, they are not to be used as a moisture barrier. Your subfloor should be completely dry prior to installation. Keep in mind that constant moisture coming from the subfloor or topically, will cause mold and mildew to be trapped underneath the product, contributing to an unhealthy environment. Parkay Floors® will not warrant any product based on damages caused by excessive moisture. Subfloors presenting vapor between 2.5% to 5% (CM-Method), must install a 6mil Poly-plastic block before laying the cushioned underlayment. All concrete subfloors must use plastic block for extra moisture protection. Parkay recommends Polyguard PRO 6 as an ideal plastic block for extra protection.
2. Subfloors must be structurally sound, solid, stable, level, plumb, and true to a tolerance in plane of 3/16" in 10 feet (4.7mm in 4m). Cracks and holes must be filled with a fast-drying setting cement- based polymer modified patching compound or equivalent. Any unevenness over 3/16" (4.7mm) must be sanded down, leveled or ramped to a 0°. The surface must be totally clean of dirt, oil, glue residue etc. Carpet tackles, staples or adhesive residue should be removed prior to installation. Voids or humps in the subfloor will prevent the planks from locking properly.
3. PARKAY XPS FLOORING can be installed on existing firm floors (Linoleum, PVC), but all floating or textile floors must be removed. When laying the floor over existing ceramic tiles first level with fast setting cement-based polymer modified patching compound.
4. The installer has the final responsibility to determine if the subfloor is dry and leveled enough to begin with the installation.

5. This product has an attached IXPE 1mm underlayment. It must be glued down when used for any commercial application, using a pressure sensitive adhesive. Parkay Floors recommends and warranties their floors only when using Loctbond Advanced 300 Pressure Sensitive Adhesive. Find more information at www.loctbondusa.com

MEASUREMENTS

1. Agree with the client on which direction the floorboards should run since this influences the visual size ratio of the space. Installation parallel to the longest wall or the main light-source is recommended for the best visual effect.
2. Pre-plan the floor by measuring the room first. If the width of the last row is less than 2" (5cm) saw the first and the last plank in equal width.
3. Snap the lines on the substrate to identify the layout reference points. Planks should be set using this reference to ensure boards are aligned and will lock together correctly.
4. In large areas where flooring will span more than 40' long, an expansion gap should be used. Otherwise place expansion space in room-narrowing and in the door-rebate. Cover the expansion space with suitable moldings.

Different production runs

PARKAY XPS FLOORS can have slight color variations in between production runs. Before starting the installation, it is best to check the production run # which is indicated on the label on the carton. If you find that you have cartons from different production runs, it is highly recommended to open cartons and install a mix of planks from each different production run on your floor. This will result in a more natural looking floor. Do NOT install your PARKAY XPS FLOORS over soft subfloors such as carpet, floating floors or foam underlayments, different than the ones recommended by the manufacturer.

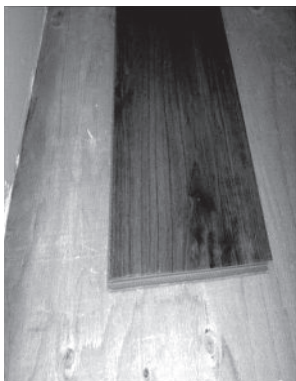
The use of pull bar and tapping block is recommended to ensure a successful install.

PARKAY XPS FLOORS provides a very tight fit. Proper care must be used to ensure all seams are tight at end of install. An unprofessional installation or use of improper tools can result in damage to the Click profiles.

INSTALLATION INSTRUCTIONS

First row:

1. Diagram #1: Start with the first plank in the left corner of the room, tongue-side facing out from the wall to the length and to the right on the width. Work from left to right.
2. Diagram #2: Position the following planks as an exact extension of the first one.
3. Cut to fit the last plank of the row. To do this you can use a utility knife to score the surface at the appropriate point and then break the tile over an edge. A laminate cutter or miter saw can be used as well.



1



2



3



4

Following rows:

1. Diagram #3: Begin the second row with the cut-off end to start the next and subsequent rows. Allow at least an 8" stagger for the end seams. For positioning the planks together, starting with the first tile in the row, raise the plank at a 45-degree angle, insert the lengthways tongue into the lengthways groove and lower the plank while holding the two together until they are flat and tightly together. Close the joint using hand pressure, tapping block or pull bar.
2. Diagram #4: Lever the next sheet in place from the front side so that only a very short distance remains for it to be pushed into the lengthways connection.



5



6



7

- Diagram #5, 6 and 7: Raise the plank slightly and push it into the lengthways tongue, first close to the front connection, then the rest. Make sure seams are tight on ends and sides using pull bar or tapping block before proceeding. Continue the installation to the last row of sheets, as described.
- How to shorten doorframes: Position a loose plank face down, close to the doorframe, and cut with a jamb saw.
- People can walk on the flooring immediately after the installation. Remove the wedges. Nail or screw moldings to the wall, never to the floor.

INSTALLATION OVER RADIANT HEATED SUBFLOORS

PARKAY XPS FLOOR Flooring is not recommended to be installed over any electrical radiant heating systems. Only radiant heated system using water are recommended. Max heating temperate must not exceed 81 F. These Instructions must be followed:

Before installing, make sure to test the heating system at its maximum capacity to force out any residual moisture and to make sure it's working properly.

Moisture content on screed must not exceed 1.5%.

Shut down the heating system at least 48 hours prior to installation.

Keep room temperate between 68°F and 77°F during the installation.

After flooring is install, turn on the heating system gradually, from minimum to maximum within 1-hour period.

MAINTENANCE

Clean regularly with a damp mop with a vinyl floor cleaner such as Bona Pro Series Vinyl Cleaner. Do not use excessive water. Remember to clean up spills as soon as possible. Always use chair protectors under furniture and on chair legs. Felt pad protectors are best. Always add floor mats on area where rolling chairs are being used.

LIFETIME RESIDENTIAL / 10 YEAR LIGHT

COMMERCIAL WARRANTY

Our ten years limited light commercial warranty for PARKAY XPS FLOORING means that for ten years, from the date of purchase from the original owner and first installation of the product, your floor will be free from manufacturing defects and will not wear through when installed and maintained according to instructions supplied with each carton. This warranty applies only to the original end user with a proof of purchase, warranty is not transferable. Floors must have been installed by a licensed and insured professional to be able to process any claim. The guarantee is for replacement or refund of the material only, no labor. Claims for wear must show a minimum dime size area. High-heeled shoes, rolling carts, furniture and chairs without protective pads can damage the floor and are not covered by this warranty.

Warranty covers against: Staining, Wear, Fading as a result of natural or artificial light, damage by moisture from everyday household spills and manufacturing defects. Floor will only be replaced for one of the same monetary value.

If more than 5% of the product pulled out of the cartons is showing defects, stop the installation immediately and contact your Parkay representative. Transition moldings are not covered under this warranty. Scratches and loss of gloss are not considered a wear-through issue. Up to 10% gloss variance is considered completely normal between planks.

This warranty excludes damage by natural disasters. This warranty excludes floors in contact with moisture trapped beneath the floor. The general warranty is pro rata (25 years for flooring). A pro rata warranty is one that provides for a refund or credit that decreases according to a set formula as the warranty period progresses. A claim process takes up to 90 days to process, from the date Parkay is contacted. We require a detailed description with images of the issue that clearly show the problem. Contact Parkay dealer no later than 15 days after the discovery of the defect. Your dealer will arrange for proper inspection and coordinate a resolution of your claim.

Parkay Floors® reserves the right to modify the contents of this warranty at any and without previous notice. Please refer to our website to obtain the latest version of our warranty.

For service under this warranty or technical questions, please go to www.Parkayfloors.com or contact your local retailer.

Describe the problem and in many cases, the retailer can provide you with a solution.

TESTS & CERTIFICATIONS

SCS Global Services does hereby certify that an independent assessment has been conducted on behalf of:

For the following product(s):

Vinyl Tile:

- Luxury Vinyl Tile (Maximum thickness: 5.0mm)
- Vinyl Compound Plank (Maximum thickness: 12.0mm)
- Rigid LVT (Maximum thickness 5.5mm)
- Loose Lay (Maximum thickness 5.0mm)

The product(s) meet(s) all of the necessary qualifications to be certified for the following claim(s):

FloorScore®

Indoor Air Quality Certified to SCS-EC10.3-2014 v4.0
Conforms to the CDPH/EHLB Standard Method v1.2-2017 (California Section 01350), effective April 1, 2017, for the school classroom and private office parameters when modeled as Flooring.
Measured Concentration of Total Volatile Organic Compounds (TVOC): Less than/equal to 0.5 mg/m³ (in compliance with CDPH/EHLB Standard Method v1.2-2017)

Registration # SCS-FS-04026
Valid from: June 1, 2020 to May 31, 2021

SCS Global Services is currently the only certification body approved by the Resilient Floor Covering Institute (RFCI) to provide FloorScore® product certification; certified products are only listed on the SCS Green Products Guide, <http://www.scsglobalservices.com/certified-green-products-guide>.



A handwritten signature in black ink that reads "Stanley Mathuram".

Stanley Mathuram, PE, Vice President
SCS Global Services
2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA

TEST REPORT

No. : XMIN180500866CCM

Date : Jul.16, 2018

Page: 1 of 16

CUSTOMER NAME:

ADDRESS:

Sample Name : RIGID VINYL CLICK TILE & RIGID VINYL CLICK PLANK
Spec. : 180*1220*4.5mm/0.3mm, 305*610*4.5mm/0.3mm
Buyer :
Buyer address :
Vendor :
Manufacturer :
Sample Ref. Info. : Model No. & Relevant EAN No.: C030TD001(3663602563716),
C030WD001(3663602563808), C030WD002(3663602563815),
C030WD003(3663602563822), C030WD004(3663602564003),
C030WD005(3663602563839), C030WD006(3663602563846)

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

Test Required : Selected test(s) as requested by applicant
SGS Ref. No. : GZIN1805025810CM, SHIN1805035899MR, SHIN1807047844MR
Date of Receipt : May.17, 2018
Testing Start Date : May.17, 2018
Testing End Date : Jul.16, 2018
Test Result(s) : For further details, please refer to the following page(s)
(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

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

Signed for
SGS-CSTC Standards Technical
Services Co., Ltd. Xiamen Branch
Testing Center



Civi Huang Authorized Signatory



SGS-CSTC Standards Technical Services Co., Ltd.
Xiamen Branch Testing Center Construction Material Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone:(86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

No. : XMIN180500866CCM

Date : Jul.16, 2018

Page: 2 of 16

Sample Information:

Flooring, See the photographs.

Lab environment condition: 23±2 °C, 50±5%RH

Preconditioning: 23±2 °C, 50±5%RH for a minimum of 24h

Test Result(s):

Sample A: C030TD001(3663602563716)

Nominal size: 610mm×305mm×4.5mm

No.	Test item(s)	Test method(s)	Test condition	Requirement(s) of EN 16511:2014 & client's requirements	Test result(s)
1	Length	ISO 24337:2006	Specimen: 610mm×305mm×4.5mm, 5pcs	$I_{nom} \leq 1500mm$: $\Delta l \leq 0.5mm$	Δl : 0.2mm
2	Width			$\Delta w_{avg} \leq 0.10mm$	Δw_{avg} : 0.05mm
3	Thickness			$w_{max} - w_{min} \leq 0.20mm$	$w_{max} - w_{min}$: 0.15mm
4	Squareness			$\Delta t_{avg} \leq 0.50mm$	Δt_{avg} : 0.00mm
5	Straightness			$t_{max} - t_{min} \leq 0.50mm$	$t_{max} - t_{min}$: 0.10mm
				$q_{max} \leq 0.20mm$	q_{max} : 0.05mm
6	Flatness	ISO 24337:2006	Specimen: 610mm×305mm×4.5mm, 5pcs	Length flatness: concave $\leq 0.50\%$ convex $\leq 1.00\%$	Length flatness(X): concave 0.04% convex 0.08%
				Width flatness: concave $\leq 0.15\%$ convex $\leq 0.20\%$	Width flatness(Y): concave 0.06% convex 0.10%
7	Openings	ISO 24337:2006	Specimen: 610mm×305mm×4.5mm, 7pcs	Ave.: $\leq 0.15mm$ Individual values: $\leq 0.20mm$	Ave.: 0.00mm Max.: 0.05mm
	Height difference			Ave.: $\leq 0.10mm$ Individual values: $\leq 0.15mm$	Ave.: 0.00mm Max.: 0.05mm
8	Wear resistance	EN 13329:2006 +A1:2008 Annex E	Specimens: 3pcs 100mm×100mm×4.5mm, Type of wheel: CS-0 Load: 5.4±0.2N/wheel Abrasive paper: S-42	≥ 1800 cycles	2100 cycles

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



SGS-CSTC Inspection & Testing Services Co., Ltd.
Xiamen Branch Testing Center Commercial Construction Material Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

No. : XMIN180500866CCM

Date : Jul.16, 2018

Page: 3 of 16

Sample B: C030TD001(3663602563716)

Nominal size: 1220mm×180mm×4.5mm

No.	Test item(s)	Test method(s)	Test condition	Requirement(s) of EN 16511:2014	Test result(s)
1	Length	ISO 24337:2006	Specimen: 1220mm×180mm×4.5mm, 5pcs	$I_{nom} \leq 1500\text{mm}$: $\Delta l \leq 0.5\text{mm}$	Δl : 0.0mm
2	Width			$\Delta w_{avg} \leq 0.10\text{mm}$	Δw_{avg} : 0.00mm
3	Thickness			$w_{max} - w_{min} \leq 0.20\text{mm}$	$w_{max} - w_{min}$: 0.05mm
				$\Delta t_{avg} \leq 0.50\text{mm}$	Δt_{avg} : 0.10mm
				$t_{max} - t_{min} \leq 0.50\text{mm}$	$t_{max} - t_{min}$: 0.25mm
4	Squareness			$q_{max} \leq 0.20\text{mm}$	q_{max} : 0.10mm
5	Straightness			$s_{max} \leq 0.30\text{mm/m}$	s_{max} : 0.10mm/m
6	Flatness	Specimen: 1220mm×180mm×4.5mm, 5pcs	Length flatness: concave $\leq 0.50\%$ convex $\leq 1.00\%$	Length flatness(X): concave 0.34% convex 0.26%	
			Width flatness: concave $\leq 0.15\%$ convex $\leq 0.20\%$	Width flatness(Y): concave 0.04% convex 0.08%	
7	Openings	Specimen: 1220mm×180mm×4.5mm, 7pcs	Ave.: $\leq 0.15\text{mm}$ Individual values: $\leq 0.20\text{mm}$	Ave.: 0.00mm Max.: 0.05mm	
	Height difference		Ave.: $\leq 0.10\text{mm}$ Individual values: $\leq 0.15\text{mm}$	Ave.: 0.00mm Max.: 0.10mm	

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



SGS-CSTC Inspection & Testing Services Co., Ltd.
Xiamen Branch Testing Center Commercial Construction Material Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgs.com.cn
中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

No. : XMIN180500866CCM

Date : Jul.16, 2018

Page: 4 of 16

No.	Test item(s)	Test method(s)	Test condition	Requirement(s) of EN 16511:2014 & client's requirements	Test result(s)
8	Wear resistance	EN 13329:2006 +A1:2008 Annex E	Specimens: 3pcs 100mm×100mm×4.5mm, Type of wheel: CS-0 Load: 5.4±0.2N/wheel Abrasive paper: S-42	≥1800 cycles	2300 cycles
9	Impact resistance	13329:2006 +A1:2008 Annex F	Specimens: 180mm×180mm×4.5mm, 6pcs Mass of steel ball: 324±5g Diameter of steel ball: 42.8±0.2mm	Impact Height: ≥800mm (class 31)	Impact Height: 2000mm, No visible damage
10	Dimensional stability (see note 2)	EN ISO 23999:2012	Specimens: 610mm×180mm×4.5mm, 3pcs Condition: 23±2°C, 50±5%RH, 24h → 80±2°C, 360min → 23±2°C, 50±5%RH, 24h	≤0.15%	Average: X Direction: 0.15% Y Direction: 0.05%
11	Curling (see note 3)			≤0.20mm No delamination after testing	Average: 0.20mm No delamination after testing
12	Residual indentation	EN ISO 24343-1: 2012	Specimen: 50mm×50mm×4.5mm, 3pcs Applied load: 500N Load time: 150min Recovery time: 150min	≤0.20mm (class 31)	Average: 0.01mm
13	Thickness swelling	ISO 24336:2005	Specimen: 150mm×50mm×4.5mm, 4pcs	/	0.2%
14	Locking strength	ISO 24334:2014	Specimen: 10 pieces of long side (X direction) specimens 200mm×180mm×4.5mm, 10 pieces of short side (Y direction) specimens 180mm×200mm×4.5mm Loading rate: 0.5 mm/min	Long and short sides ≥ 3.5kN/m	Long side(X): 5.2 kN/m Short side(Y): 4.2 kN/m
15	Castor chair resistance	EN 425:2002	Load: 90kg Type of wheels: Type W Cycles: 25000	After 25 000 cycles, no visible damage. (as per class 32, 33, 34)	No visible damage

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



SGS-CSTC Inspection & Testing Services Co., Ltd.
Xiamen Branch Testing Center Commercial Construction Material Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

No. : XMIN180500866CCM

Date : Jul.16, 2018

Page: 5 of 16

No.	Test item(s)	Test method(s)	Test condition	Requirement(s) of EN 16511:2014 & client's requirements	Test result(s)
16	Resistance to staining	EN 438-2: 2016 Section 26	Specimen: 200mm×180mm×4.5mm, 5pcs	Groups 1 and 2: grade 5 Group 3: grade 4 (as per class 32, 33, 34)	Rating 5: No change (See Annex A)
17	Effect of Simulated Movement of Furniture Leg	EN 424:2002	Specimen thickness: 4.58mm Foot type and applied mass: Type 0 (32kg) Testing speed: 0.20m/s	No visible damage (as per class 32, 33, 34)	X direction: No visible damage Y direction: No visible damage
18	Micro-scratch resistance	BS EN 16094:2012	See Annex B	/	Procedure A: MSR-A1, Procedure B: MSR-B1, (See Annex B)
19	Classification	ISO 10874:2009	See Annex C	See Annex C	Complied with class 32 (See Annex C)

Sample C: C030WD006(3663602563846)

No.	Test item(s)	Test method(s)	Test condition	Test result(s)
1	Micro-scratch resistance	BS EN 16094:2012	See Annex D	Procedure A: MSR-A1, Procedure B: MSR-B1, (See Annex D)

Note: 1. All test specimens were cut from the samples, see the photographs.

2. Dimensional stability, % = (Dimension before exposure to heat - Dimension after exposure to heat)/Dimension before exposure to heat × 100.

Reference distance of X direction is 570mm. Reference distance of Y direction is 140mm.

3. Curling, mm = Dimension after exposure to heat - Dimension before exposure to heat.

4. Testing samples(sample B) for Wear resistance was received in the second time(dated: Jul.12, 2018).

5. Effect of Simulated Movement of Furniture Leg was carried out by SGS-CSTC Standards Technical Services Co., Ltd. GuangZhou Branch.

6. Micro-scratch resistance was carried out by SGS-CSTC Standards Technical Services(Shanghai) Co., Ltd..

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



SGS-CSTC Standards Technical Services Co., Ltd.
Xiamen Branch Testing Center Commercial Construction Material Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

No. : XMIN180500866CCM

Date : Jul.16, 2018

Page: 6 of 16

Annex A: Result of the staining resistance

Sample Description: Floor(Sample B)

No.	Stain agent		Contact time	Result - Rating
1	Group 1	Acetone	16h	5
2	Group 2	Coffee (120g coffee per litre of water)	16h	5
3	Group 3	Sodium hydroxide 25% solution	10min	5
4		Hydrogen peroxide 30% solution	10min	5
5		Shoe Polish	10min	5

Descriptive numerical rating code:

Numerical rating	Description
5	No change test area indistinguishable from adjacent surrounding area
4	Minor change test area distinguishable from adjacent surrounding area, only when the light source is mirrored on the test surface and is reflected towards the observer's eye, e. g. discoloration, change in gloss and colour
3	Moderate change test area distinguishable from adjacent surrounding area, visible in several viewing directions, e. g. discoloration, change in gloss and colour
2	Significant change test area clearly distinguishable from adjacent surrounding area, visible in all viewing directions, e. g. discoloration, change in gloss and colour, and / or structure of the surface slightly changed, e.g. cracking, blistering
1	Strong change the structure of the surface being distinctly changed and / or discoloration, change in gloss and colour, and / or the surface material being totally or partially delaminated

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



SGS-CSTC Shanghai Technical Services Co., Ltd.
Xiamen Branch Testing Center Commercial Construction Material Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

No. : XMIN180500866CCM

Date : Jul.16, 2018

Page: 7 of 16

Annex B

Test Item: Determination of micro-scratch resistance

Sample Description: Panel(Sample B)

Test Method: BS EN 16094:2012

Test Condition:

Rubbing finger: Φ90mm

Procedure A:

Rubbing material: SB 7447

Load: (612±2)g

Cycles: 80

Procedure B:

Rubbing material: SB 7440

Load: (413±2)g

Cycles: 160

Test Result:

Procedure	Sample	Gloss change $\Delta R'$ (60°) (See note 1)	Micro-scratch resistance class (See note 2)
A	B	2.5%	MSR-A1

Procedure	Sample	Appearance	Resistance class (See note3)
B	B	No visible scratches.	MSR-B1

Note:

1. $\Delta R' = (R_i - R_f) / R_i \times 100\%$, R_i is the mean value at initial state, R_f is the mean value after finishing the test.

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



SGS-CSTC Xiamen Branch Testing Center
Xiamen Branch Testing Center Construction Material Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgs.com.cn
中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

No. : XMIN180500866CCM

Date : Jul.16, 2018

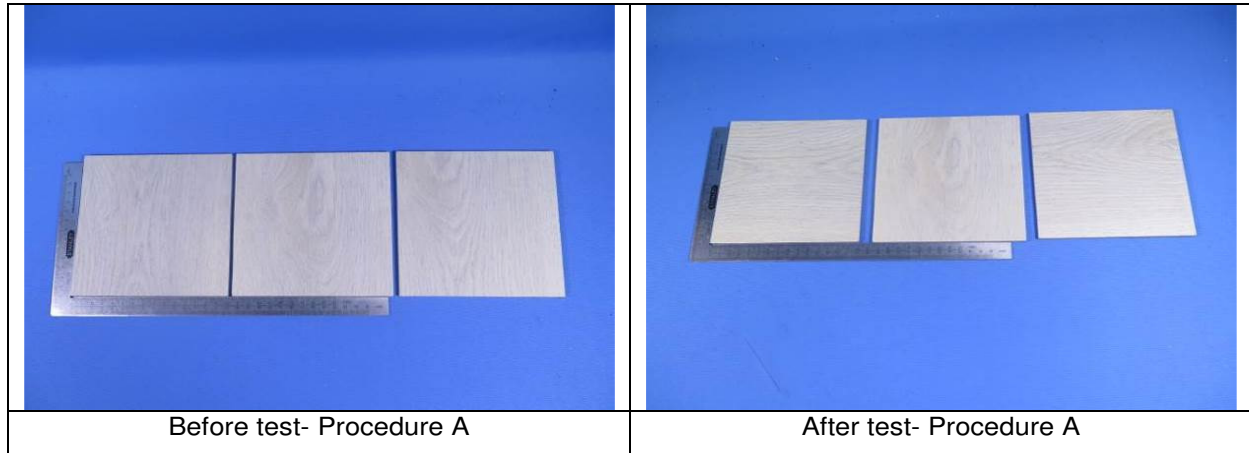
Page: 8 of 16

2. Classification of mean values of gloss change:

Micro-scratch resistance class according to procedure A	I Change of gloss I
MSR-A1	≤10%
MSR-A2	> 10 % to 30 %
MSR-A3	> 30 % to 50 %
MSR-A4	> 50 % to 70 %
MSR-A5	> 70 %

3. According to BS EN 16094:2012 Table B.1, MSR-B1 is the best while MSR-B5 is the worst.

Test Photo:



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



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com


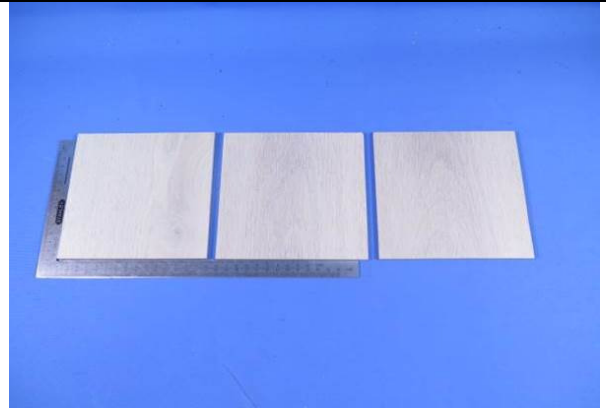
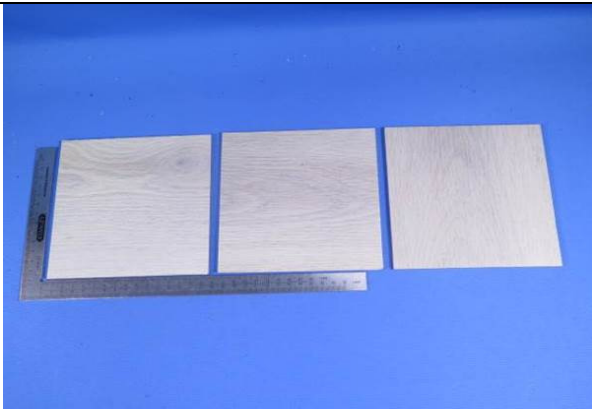

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
 中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

No. : XMIN180500866CCM

Date : Jul.16, 2018

Page: 9 of 16

	
<p>The close-up after test- Procedure A</p>	<p>Before test- Procedure B</p>
	
<p>After test- Procedure B</p>	<p>The close-up after test- Procedure B</p>

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



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CSTC (Singapore Technical Services Co., Ltd.)
Xiamen Branch Testing Center Commercial Construction Material Laboratory

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

No. : XMIN180500866CCM

Date : Jul.16, 2018

Page: 10 of 16

Annex C

Classification

Test Requirement:

EN 16511:2014 Loose-laid panels - Semi-rigid multilayer modular floor covering (MMF) panels with wear resistant top layer


ISO 10874:2009 Resilient, textile and laminate floor coverings - Classification

Sample Description: Floor(Sample B)

Declared class: class 32

Type of product: Heterogeneous

Test Result:

Class	Symbol	Evaluation	Conclusion
32		Complied with classification requirements specified in EN 16511:2014. [see note (2)]	Pass

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



SGS-CSTC (Singapore) Technical Services Co., Ltd.
Xiamen Branch Testing Center Commercial Construction Material Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgs.com.cn
中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT









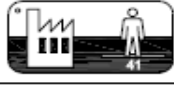
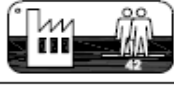
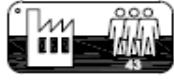
No. : XMIN180500866CCM

Date : Jul.16, 2018

Page: 11 of 16

Note (1): Classification scheme (described in ISO 10874:2009):

Table 1 — Classification

Class	Symbol	Intensity of use	Description
		Domestic	Areas considered for residential use
21		Moderate/Light	Areas with low or intermittent use
22		General/Medium	Areas with medium use
22+		General	Areas with medium to heavy use
23		Heavy	Areas with heavy use
		Commercial	Areas considered for public and commercial use
31		Moderate	Areas with low or intermittent use
32		General	Areas with medium use
33		Heavy	Areas with heavy use
34		Very heavy	Areas with intense use
		Light industrial	Areas considered for light industrial use
41		Moderate	Areas where work is mainly sedentary with occasional use of light vehicles
42		General	Areas where work is mainly standing and/or with vehicular traffic
43		Heavy	Other light industrial areas

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



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
 中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编: 361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

No. : XMIN180500866CCM

Date : Jul.16, 2018

Page: 12 of 16

Note (2): Classification requirements (specified in EN 16511:2014):

Class (EN 10874)	21/22	23	31	32	33	34	Reference test method
Wear resistance IP, method A	≥ 200 cycles	≥ 400 cycles	≥ 600 cycles	≥ 1200 cycles	≥ 2000 cycles	≥ 4000 cycles	EN 13329: 2006+A1:2008, Annex E
Impact resistance (big ball)	≥ 400 mm	≥ 600 mm	≥ 800 mm	≥ 1200 mm	≥ 1600 mm	≥ 1800 mm	EN 13329: 2006+A1:2008, Annex F
Micro-scratch resistance [class]	/	/	/	≤ MSR-A3, ≤ MSR-B3,	≤ MSR-A2, ≤ MSR-B2,	≤ MSR-A2, ≤ MSR-B2,	EN 16094
Castor chair resistance	/	/	10 000 cycles ^{a, c}	25 000 cycles ^{a, c}	25 000 cycles ^{a, c}	25 000 cycles ^{a, c}	EN 425
Effect of Furniture Leg	/	/	/	No visible damage	No visible damage	No visible damage	EN 424 (tested with foot type 0)
Residual indentation	≤ 0.3 mm	≤ 0.3 mm	≤ 0.3 mm	≤ 0.2 mm	≤ 0.2 mm	≤ 0.15 mm	EN ISO 24343-1
Resistance to staining	Water, coffee and cleaning solution (10min): grade 4	Water, coffee and cleaning solution (10min): grade 4	Groups 1 and 2: grade 4 Group 3: grade 3	Groups 1 and 2: grade 5 Group 3: grade 4	Groups 1 and 2: grade 5 Group 3: grade 4	Groups 1 and 2: grade 5 Group 3: grade 4	EN 438-2 Group 1 only 10min
Swelling [%]	≤ 20	≤ 20	≤ 20	≤ 18	≤ 18	≤ 12	ISO 24336
Locking strength ^{b, **} Locking strength ^{b, *} [kN/m]	/	/	/	Long side ≥1.0 Short side ≥1.5 Long side ≥1.0 Short side ≥2.0	Long side ≥1.0 Short side ≥1.5 Long side ≥1.0 Short side ≥2.0	Long side ≥2.0 Short side ≥3.5 Long side ≥1.0 Short side ≥3.5	ISO 24334
Dimensional stability due to variation of temperature Length variation Δl(length and crosswise) in % ^{**}	≤ 0.5 %	≤ 0.5 %	≤ 0.25 %	≤ 0.25 %	≤ 0.25 %	≤ 0.25 %	EN ISO 23999

- a No disturbance to the surface only gloss changes, no delamination, cracks or disruptions
- b Only for loose-laid panels
- c Tested with soft wheel
- * Only for panels with substrates or layer with hygroscopic properties, e.g. HDF or cork.
- ** Only for products with significant reaction on temperature changing, e.g. thermoplastic vinyl core.

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



SGS-CSTC
Xiamen Branch Testing Center

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

No. : XMIN180500866CCM

Date : Jul.16, 2018

Page: 13 of 16

Annex D

Test Item: Determination of micro-scratch resistance

Sample Description: Panel(Sample C)

Test Method: BS EN 16094:2012

Test Condition:

Rubbing finger: Φ90mm

Procedure A:

Rubbing material: SB 7447

Load: (612±2)g

Cycles: 80

Procedure B:

Rubbing material: SB 7440

Load: (413±2)g

Cycles: 160

Test Result:

Procedure	Sample	Gloss change $\Delta R'$ (60°) (See note 1)	Micro-scratch resistance class (See note 2)
A	C	-3.27%	MSR-A1

Procedure	Sample	Appearance	Resistance class (See note3)
B	C	No visible scratches.	MSR-B1

Note:

1. $\Delta R' = (R_i - R_f) / R_i \times 100\%$, R_i is the mean value at initial state, R_f is the mean value after finishing the test.

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



SGS-CSTC Xiamen Branch Testing Center
Xiamen Branch Testing Center Construction Material Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgs.com.cn
中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

No. : XMIN180500866CCM

Date : Jul.16, 2018

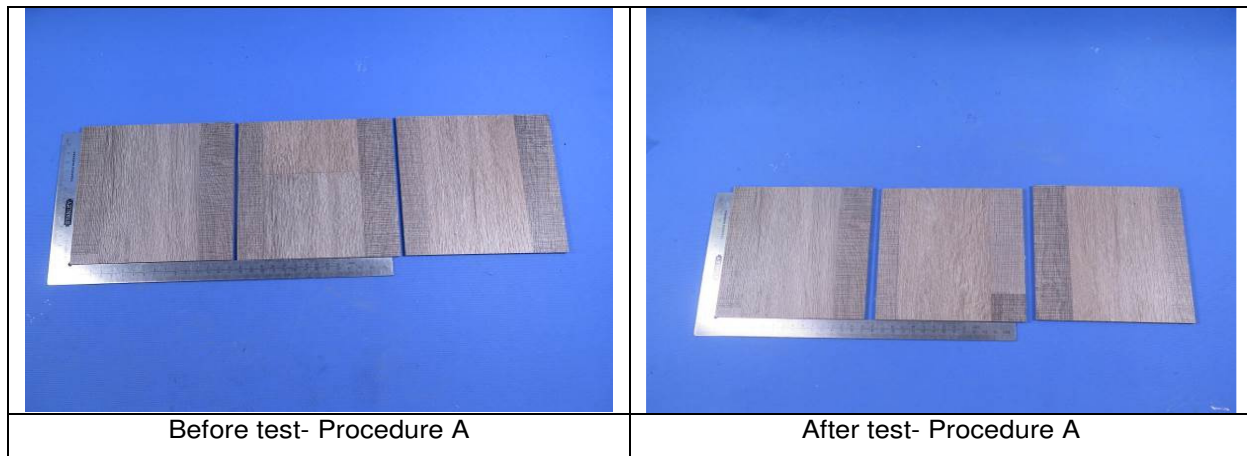
Page: 14 of 16

2. Classification of mean values of gloss change:

Micro-scratch resistance class according to procedure A	I Change of gloss I
MSR-A1	≤10%
MSR-A2	> 10 % to 30 %
MSR-A3	> 30 % to 50 %
MSR-A4	> 50 % to 70 %
MSR-A5	> 70 %

3. According to BS EN 16094:2012 Table B.1, MSR-B1 is the best while MSR-B5 is the worst.

Test Photo:



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



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Document.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CSTC (Singapore Technical Services Co., Ltd.)
Xiamen Branch Testing Center Commercial Construction Material Laboratory

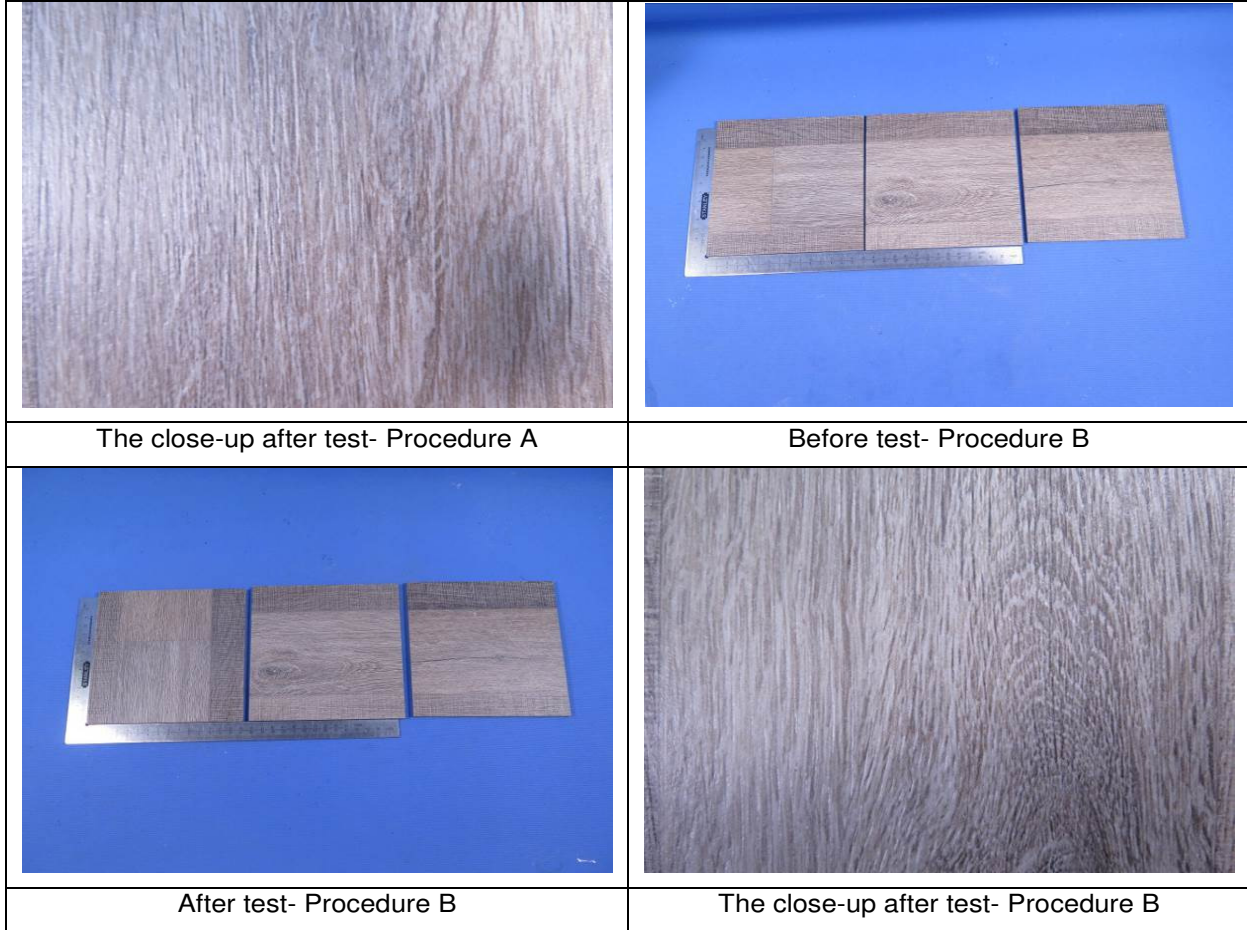
No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

TEST REPORT

No. : XMIN180500866CCM

Date : Jul.16, 2018

Page: 15 of 16



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



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
 中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编: 361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

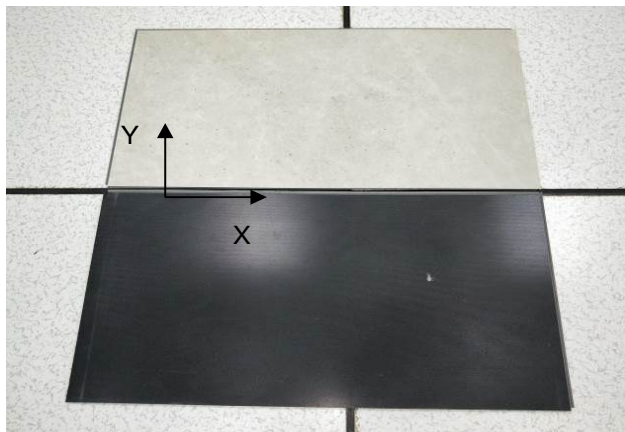
TEST REPORT

No. : XMIN180500866CCM

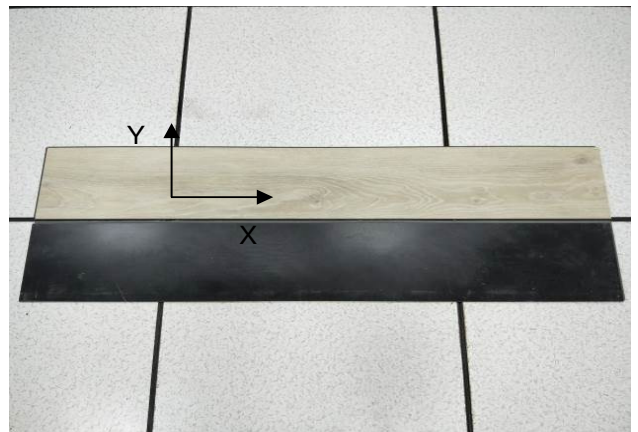
Date : Jul.16, 2018

Page: 16 of 16

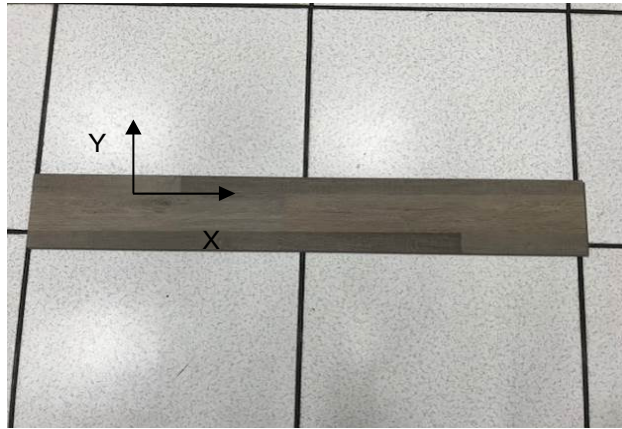
Specimen photograph(s):



Sample A: C030TD001(3663602563716)



Sample B: C030WD002(3663602563815)



Sample C: C030WD006(3663602563846)

SGS authenticate the photo(s) on original report only

*****End of report*****



SGS-CSTC (Singapore Technical Services Co., Ltd.)
Xiamen Branch Testing Center Commercial Construction Material Laboratory

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

No.31 Xianghong Road, Xiang'an Torch Industrial Zone, Xiamen, Fujian Province, China. 361101 t (86-592) 5765857 f (86-592) 5765380 www.sgsgroup.com.cn
中国·福建·厦门·火炬(翔安)产业区翔虹路31号 邮编:361101 t (86-592) 5765857 f (86-592) 5765380 e sgs.china@sgs.com

