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HALEAD



**LUXURY VINYL
FLOORING**

Technical Brochure

www.floor.halead.com

Your Flooring Partner

Halead is known for very high quality automotive products. We have applied these high standards in our flooring division.

We strive for innovation, first class service and cost-efficient solutions to meet and exceed our global customer's needs.

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HALEAD TODAY

Halead was founded in 2001 and went into Shenzhen Stock Exchange in 2008. We have witnessed rapid development over the past decade. Halead is a global material science and technology-based company now active in fine flooring. Halead is now becoming one of the world's leading manufacturers of Luxury Vinyl, WPC, SPC and Loose Lay Flooring.

Halead employs approximately 2,500 domestic dedicated and talented individuals to deliver superior value to our customers and shareholders, with an ongoing commitment to quality, customer satisfaction and the environment.

Halead continues to make positive progress in International Markets and we have generated core revenue of over 500 Million USD.

80 km. from
SHANGHAI / HANGZHOU



GLOBAL TEAM

Our goal is to serve the global community with top quality flooring, Halead has established two joint-venture Companies in the US and Europe and have employed over 20 local sales and technical representatives in 5 countries worldwide.

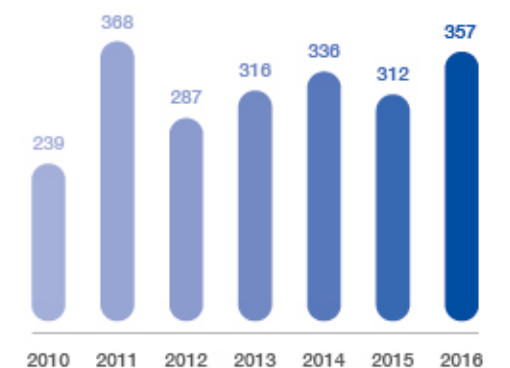
- 📍 Global sales network
(America, England, Russia, Denmark, Italy)
- Customer networking
(America, Canada, England, Germany, Australia, France, Spain, Arabia and many others)



Factory area:
Total: 6.67 million sq.ft

Employee:
2400 +

Revenues(USD million):





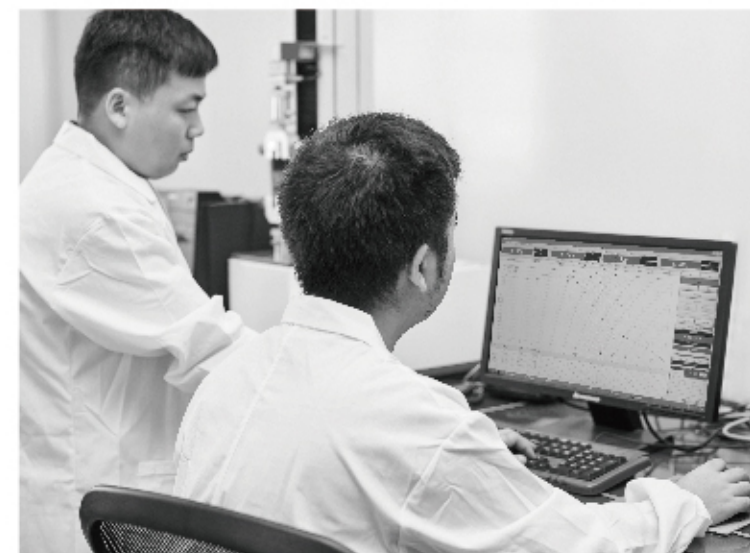
INNOVATION

We pride ourselves in the continuous pursuit of excellence in our flooring business. Our ongoing pursuit of new innovations in technologies, approaches, methodologies and processes keeps us at the forefront of the flooring industry. We have a research institute consisting of 5 Physics Labs and 2 chemistry labs, which makes Halead one of the world's most research-intensive flooring enterprises.



NEW CAPACITY

In 2017, we invested 50 million USD to build a brand-new flooring factory to meet the fast-growing demand from our global customers, HALEAD FLOORING is becoming a top, global vinyl flooring brand.



EXCELLENCE

Halead is also the world's leading material manufacturer for auto safety air bags and safety belts, The Halead Flooring Division also strives for perfection in quality and timely service. Our innovative research and development teams use the most up-to-date solutions. Our standards for excellence enable our clients to pass these benefits on to their own customers.

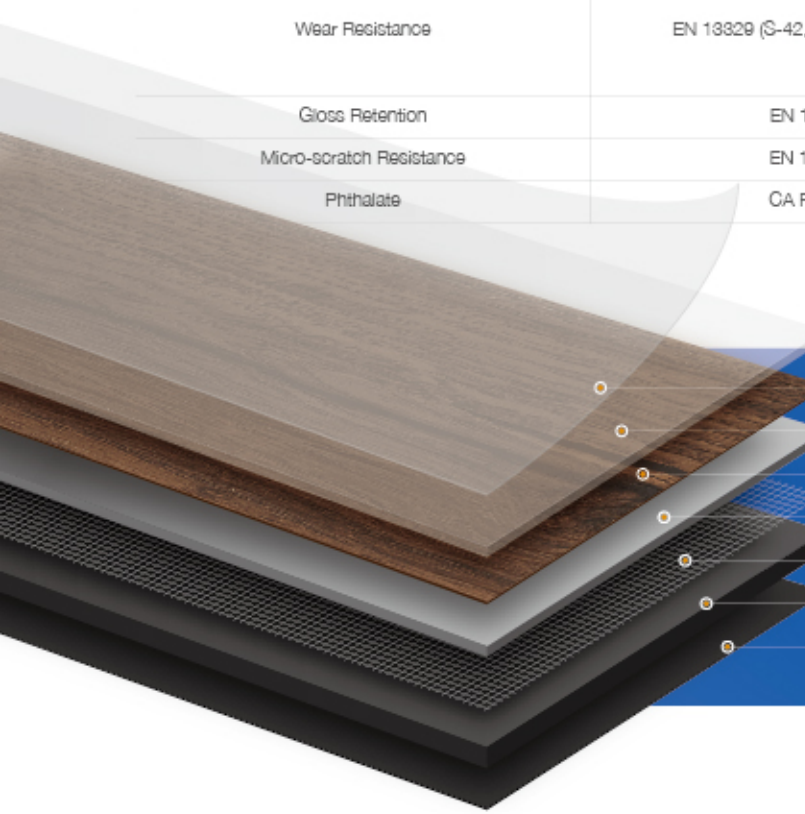


Welcome To
Vinyl Flooring World

Loose lay vinyl flooring is produced with a unique anti-slip backing, the installation process is simple, the planks or tiles are installed by butting the edges tightly. This provides for an impressive finished look, but also provides a high degree of stability. This flooring therefore does not require adhering to the subfloor or the expensive subfloor preparation that traditional flooring needs. Larger installations may require adhesive around the perimeter. Expansion gaps may not be required.

Test Items	Standard	Result
Appearance / Color Match	Master Sample	Match
Thickness	EN428	4.0 / 4.5 / 5.0mm (n±0.15mm)
Thickness of wear layer		0.3 / 0.5 / 0.55 / 0.7mm
Plank Length	EN427	n < 300mm: ±0.1mm
Plank Width		n ≥ 300mm: ±0.3mm
Squareness		≤0.25mm
Edge straightness		≤0.25mm
Fire Rating – Flame Spread – CRF	ASTM E848	Class I (> 0.45 W/cm2)
Fire Rating – Smoke Evolution – OSD	ASTM E862	Class 1 (< 450)
Water Absorption	ASTM D570-98	≤3%
Impact Sound Reduction	ASTM E2179-09	ΔIIC 15
Dynamic coefficient of friction	EN 13893:2002	0.89
Flexibility	ASTM F137-08	No crack or break when using Ø25.4mm mandrel
Gloss unit	ASTM D628	Target±1°
Dimensional Stability	EN434	≤0.12%
Curling After Exposure to Heat	EN434	≤1.2mm
Assembled gap	EN13329	≤0.20mm
Height Difference (Assembled)		≤0.20mm
Wear Resistance	EN 13329 (S-42, 200 cycle change)	Wear Layer Thickness 0.3 mm:IP ≥ 1800 cycles Wear Layer Thickness 0.5 mm:IP ≥ 4000 cycles Wear Layer Thickness 0.7 mm:IP ≥ 6000 cycles
Gloss Retention	EN 16094A	≥2 grade
Micro-scratch Resistance	EN 16094B	≥2 grade
Phthalate	CA Prop 65	≤1000PPM

UV coating: anti-scratch coating / anti-microbial coating / stain-resistant coating / slip resistance coating R10



- UV coating
- Wear layer
- Printing layer
- Middle layer
- Fiberglass
- Bottom layer
- Slip resistance layer



RSVP FLOORING (Rigid Core LVP) is an upgrade and improvement of regular luxury vinyl tiles (LVT). The primary core material is SPC which is a very stable composite material.

RSVP flooring is considered the new generation of vinyl floor covering. It features: extreme stability, high performance, is completely water-proof, has a high density solid core and very good indentation resistance. RSVP flooring can be easily installed on most types of subfloors, including concrete, ceramic or existing flooring.

Test Items	Standard	Result
Appearance / Color Match	Master Sample	Match
Thickness	EN428	4.0 / 5.0 / 6.5 / 6.8 / 7.0mm (n±0.15mm)
Thickness of wear layer		0.3 / 0.5 / 0.55 / 0.7mm
Plank Length	EN427	n < 300mm: ±0.1mm
Plank Width		n ≥ 300mm: ±0.3mm
Squareness		≤0.15mm
Edge straightness		≤0.15mm
Lock Strength	Halead Standard	Thickness ≥ 5.0mm: ≥ 160N/5cm Thickness < 5.0mm: ≥ 120N/5cm
Fire Rating – Flame Spread – CRF	ASTM E848	Class I (> 0.45 W/cm2)
Fire Rating – Smoke Evolution – OSD	ASTM E862	Class 1 (< 450)
Water Absorption	ASTM D570-98	≤3%
Gloss unit	ASTM D523	Target±1°
Dimensional Stability	EN434	≤0.12%
Curling After Exposure to Heat	EN434	≤1.2mm
Assembled gap	EN13329	≤0.15mm
Height Difference (Assembled)		≤0.15mm
Wear Resistance	EN 13329 (S-42, 200 cycle change)	Wear Layer Thickness 0.2 mm:IP ≥ 1000 cycles Wear Layer Thickness 0.3 mm:IP ≥ 1800 cycles Wear Layer Thickness 0.5 mm:IP ≥ 4000 cycles Wear Layer Thickness 0.7 mm:IP ≥ 6000 cycles
Gloss Retention	EN 16094A	≥2 grade
Micro-scratch Resistance	EN 16094B	≥2 grade
Phthalate	CA Prop 65	≤1000PPM

UV coating: anti-scratch coating / anti-microbial coating / stain-resistant coating / slip resistance coating R10



- UV coating
- Wear layer
- Printing layer
- LVT layer
(include fiberglass)
- SPC Core

HALED flex tXPE/EVA/CORK 1.0/1.5/2.0mm

(OPTIONAL)

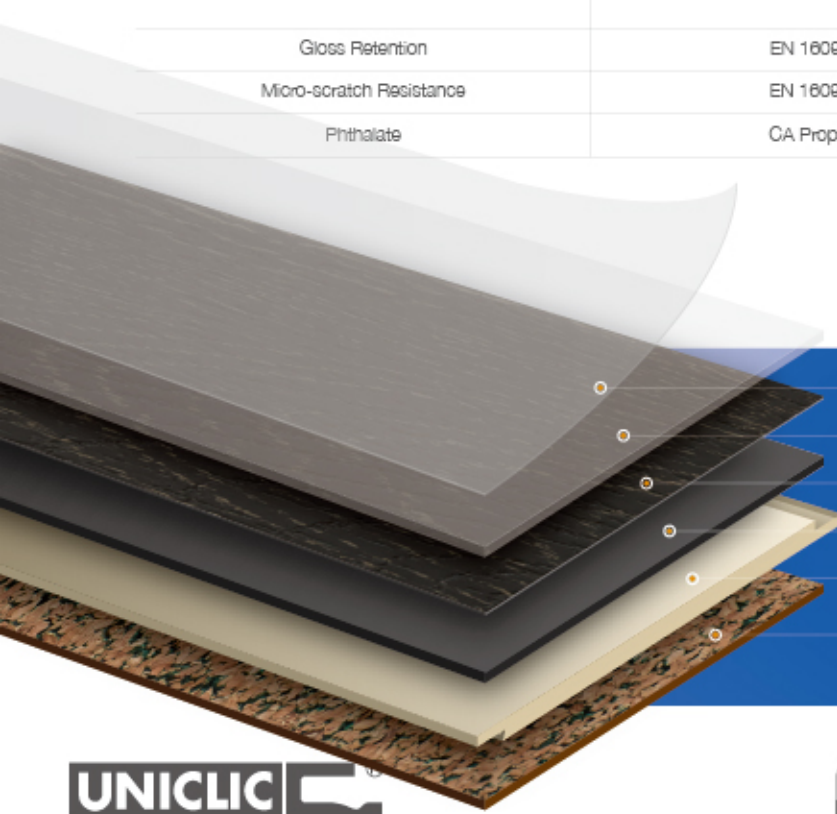


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WPC flooring is best known for being 100% waterproof. It is luxury vinyl flooring amped up a notch with a special waterproof core that makes it perfect for just about any room in the house. WPC is one of the best flooring types in the vinyl flooring world today and hugely popular among homeowners looking for the look of traditional hardwood without the maintenance. It is also one of the most popular flooring options for commercial spaces and businesses.

Test Items	Standard	Result
Appearance / Color Match	Master Sample	Match
Thickness	EN428	5.0 / 6.5 / 7.0 / 8.0mm (n±0.15mm)
Thickness of wear layer		0.3 / 0.5 / 0.55 / 0.7mm
Plank Length	EN427	n < 300mm: ±0.1mm
Plank Width		n ≥ 300mm: ±0.3mm
Squareness		≤0.15mm
Edge straightness		≤0.15mm
Lock Strength	Halead Standard	Thickness ≥ 5.0mm: ≥160N/5cm Thickness < 5.0mm: ≥120N/5cm
Fire Rating – Flame Spread – CRF	ASTM E648	Class I (> 0.45 W/cm2)
Fire Rating – Smoke Evolution – OSD	ASTM E662	Class 1 (< 450)
Water Absorption	ASTM D570-98	≤3%
Gloss unit	ASTM D628	Target ±1°
Dimensional Stability	EN434	≤0.12%
Curing After Exposure to Heat	EN434	≤1.2mm
Assembled gap	EN13329	≤0.15mm
Height Difference (Assembled)		≤0.15mm
Wear Resistance	EN 13329 (S-42, 200 cycle change)	Wear Layer Thickness 0.2 mm: IP ≥ 1000 cycles Wear Layer Thickness 0.3 mm: IP ≥ 1800 cycles Wear Layer Thickness 0.5 mm: IP ≥ 4000 cycles Wear Layer Thickness 0.7 mm: IP ≥ 6000 cycles
Gloss Retention	EN 16094A	≥2 grade
Micro-scratch Resistance	EN 16094B	≥2 grade
Phthalate	CA Prop 65	≤1000PPM

UV coating: anti-scratch coating / anti-microbial coating / stain-resistant coating / slip resistance coating R10



UV coating
Wear layer
Printing layer
Middle layer
WPC Core

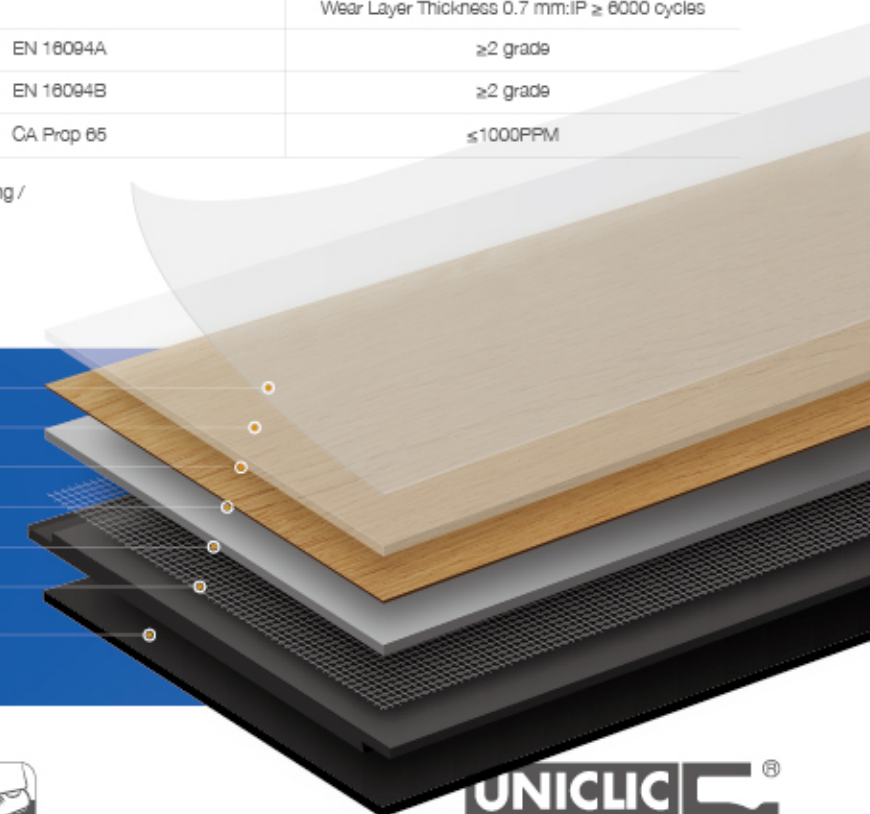
HALED flex (xPE/EVA/CORK 1.0/1.5/2.0mm)
(OPTIONAL)



The LVT click installation system is the perfect solution for a quick DIY renovation. Simple and easy to work with, by simply adjusting the individual planks to the existing room's dimensions, all you need to do is match tongue and groove and click them together. There is no need for any adhesives, extra materials or special assistance.

Test Items	Standard	Result
Appearance / Color Match	Master Sample	Match
Thickness	EN428	4.0 / 4.2 / 4.5 / 5.0mm (n±0.15mm)
Thickness of wear layer		0.12 / 0.3 / 0.5 / 0.55 / 0.7mm
Plank Length	EN427	n < 300mm: ±0.1mm
Plank Width		n ≥ 300mm: ±0.3mm
Squareness		≤0.15mm
Edge straightness		≤0.15mm
Lock Strength	Halead Standard	Thickness ≥ 5.0mm: ≥160N/5cm Thickness < 5.0mm: ≥120N/5cm
Fire Rating – Flame Spread – CRF	ASTM E648	Class I (> 0.45 W/cm2)
Fire Rating – Smoke Evolution – OSD	ASTM E662	Class 1 (< 450)
Water Absorption	ASTM D570-98	≤3%
Gloss unit	ASTM D628	Target ±1°
Dimensional Stability	EN434	≤0.12%
Curing After Exposure to Heat	EN434	≤1.2mm
Assembled gap	EN13329	≤0.15mm
Height Difference (Assembled)		≤0.15mm
Wear Resistance	EN 13329 (S-42, 200 cycle change)	Wear Layer Thickness 0.2 mm: IP ≥ 1000 cycles Wear Layer Thickness 0.3 mm: IP ≥ 1800 cycles Wear Layer Thickness 0.5 mm: IP ≥ 4000 cycles Wear Layer Thickness 0.7 mm: IP ≥ 6000 cycles
Gloss Retention	EN 16094A	≥2 grade
Micro-scratch Resistance	EN 16094B	≥2 grade
Phthalate	CA Prop 65	≤1000PPM

UV coating: anti-scratch coating / anti-microbial coating / stain-resistant coating / slip resistance coating R10



UV coating
Wear layer
Printing layer
Middle layer
Fiberglass
Bottom layer

HALED flex (xPE/EVA/CORK 1.0/1.5/2.0mm)
(OPTIONAL)

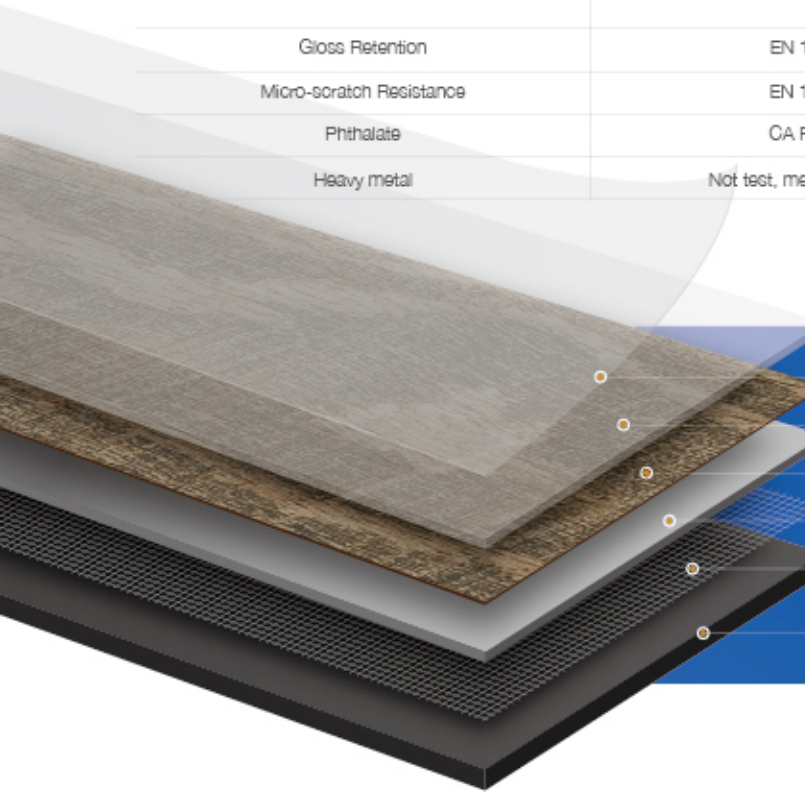


Dry back vinyl flooring is constructed of solid vinyl PVC. Its direct stick installation method requires the vinyl to be glued down using a permanent bond directly to the subfloor to ensure stability. The direct stick process provides a more solid feel and reduces rebound noise that is often associated with other installation methods.

Luxury dry back vinyl is a perfect choice for high traffic areas due to its incredible durability and resilience but it also has an impressive realistic appearance. Not only does this flooring provide the perfect balance between aesthetics and performance, but the distinct design elements ensure the suitability for both commercial and residential spaces.

Test Items	Standard	Result
Appearance / Color Match	Master Sample	Match
Thickness	EN428	1.5 / 2.0 / 2.5 / 3.0 / 4.0 / 5.0mm (n±0.15mm)
Thickness of wear layer		0.12 / 0.2 / 0.3 / 0.5 / 0.65 / 0.7mm
Plank Length	EN427	n < 300mm: ±0.1mm
Plank Width		n ≥ 300mm: ±0.3mm
Squareness		≤0.25mm
Edge straightness		≤0.25mm
Fire Rating – Flame Spread – CRF	ASTM E648	Class I (> 0.45 W/cm2)
Fire Rating – Smoke Evolution – OSD	ASTM E862	Class 1 (< 450)
Water Absorption	ASTM D570-98	≤3%
Gloss unit	ASTM D623	Target±1°
Dimensional Stability	EN434	≤0.12%
Curling After Exposure to Heat	EN434	≤1.2mm
Assembled gap	EN13329	≤0.20mm
Height Difference (Assembled)		≤0.20mm
Wear Resistance	EN 13329	WL (0.1mm): IP ≥ 550 cycles WL (0.2mm): IP ≥ 1000 cycles Wear Layer Thickness 0.3 mm:IP ≥ 1800 cycles Wear Layer Thickness 0.5 mm:IP ≥ 4000 cycles Wear Layer Thickness 0.7 mm:IP ≥ 6000 cycles
Gloss Retention	EN 16094A	≥2 grade
Micro-scratch Resistance	EN 16094B	≥2 grade
Phthalate	CA Prop 65	≤1000PPM
Heavy metal	Not test, meet CPSC limits	Not test, meet CPSC limits

UV coating: anti-scratch coating / anti-microbial coating / stain-resistant coating / slip resistance coating R10



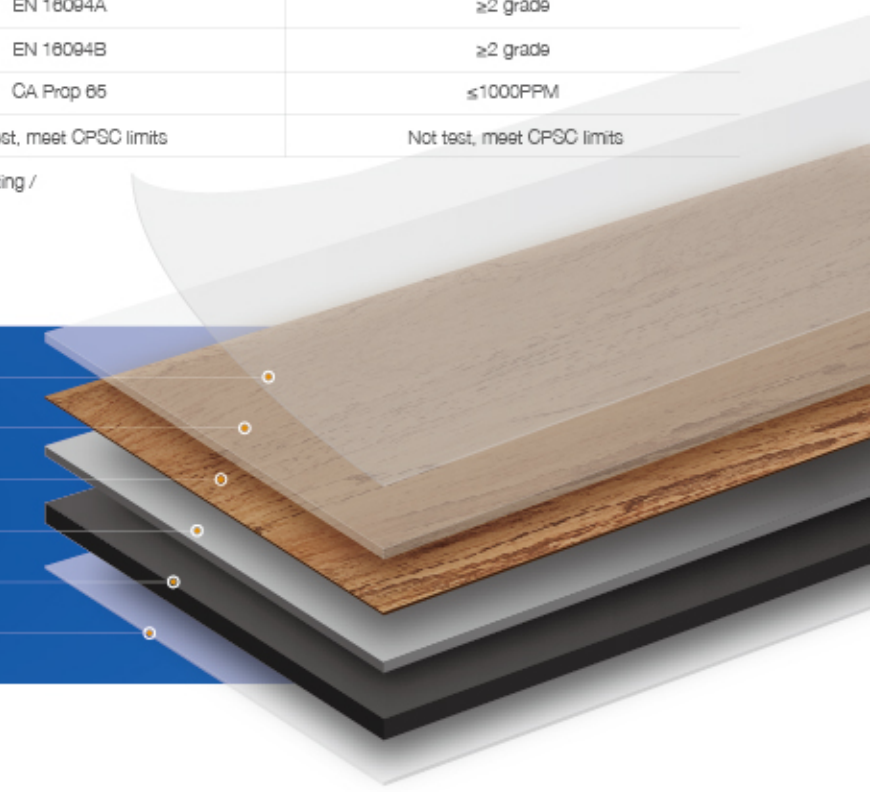
- UV coating
- Wear layer
- Printing layer
- Middle layer
- Fiberglass
(Total thickness ≥ 2.5mm)
- Bottom layer



LVT Peel and stick is specifically designed for an easy installation, directly onto a smooth floor. The adhesive bottom layer provides excellent adhesion to the substrate. LVT Peel and stick is installed without the use of additional adhesive by simply removing the protective film, and placing the flooring where you want. Then, press firmly from the center to the edges. Immediately after the installation of the self-adhesive luxury vinyl flooring, you can use your room as normal and enjoy the new environment that you have created. This installation is simple, easy and straightforward.

Test Items	Reference	Standard Value
Appearance / Color Match	Master Sample	Match
Thickness	EN428	1.5 / 2.0 / 2.5 / 3.0mm (n±0.15mm)
Thickness of wear layer		0.12 / 0.2 / 0.3mm
Plank Length	EN427	n < 300mm: ±0.1mm
Plank Width		n ≥ 300mm: ±0.3mm
Squareness		≤0.25mm
Edge straightness		≤0.25mm
Fire Rating – Flame Spread – CRF	ASTM E648	Class I (> 0.45 W/cm2)
Fire Rating – Smoke Evolution – OSD	ASTM E862	Class 1 (< 450)
Water Absorption	ASTM D570-98	≤3%
Gloss unit	ASTM D623	Target±1°
Dimensional Stability	EN434	≤0.12%
Curling After Exposure to Heat	EN434	≤1.2mm
Assembled gap	EN13329	≤0.20mm
Height Difference (Assembled)		≤0.20mm
Wear Resistance	EN 13329	WL (0.1mm): IP ≥ 550 cycles WL (0.2mm): IP ≥ 1000 cycles Wear Layer Thickness 0.3 mm:IP ≥ 1800 cycles
Gloss Retention	EN 16094A	≥2 grade
Micro-scratch Resistance	EN 16094B	≥2 grade
Phthalate	CA Prop 65	≤1000PPM
Heavy metal	Not test, meet CPSC limits	Not test, meet CPSC limits

UV coating: anti-scratch coating / anti-microbial coating / stain-resistant coating / slip resistance coating R10



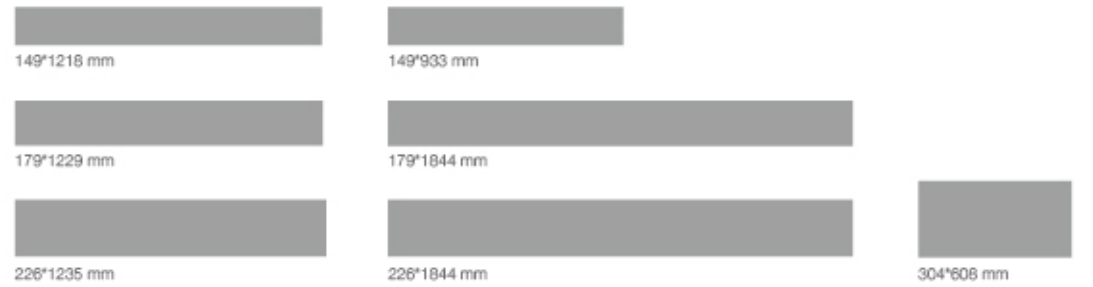
- UV coating
- Wear layer
- Printing layer
- Middle layer
- Bottom layer
- Separation layer



We can provide the size of product

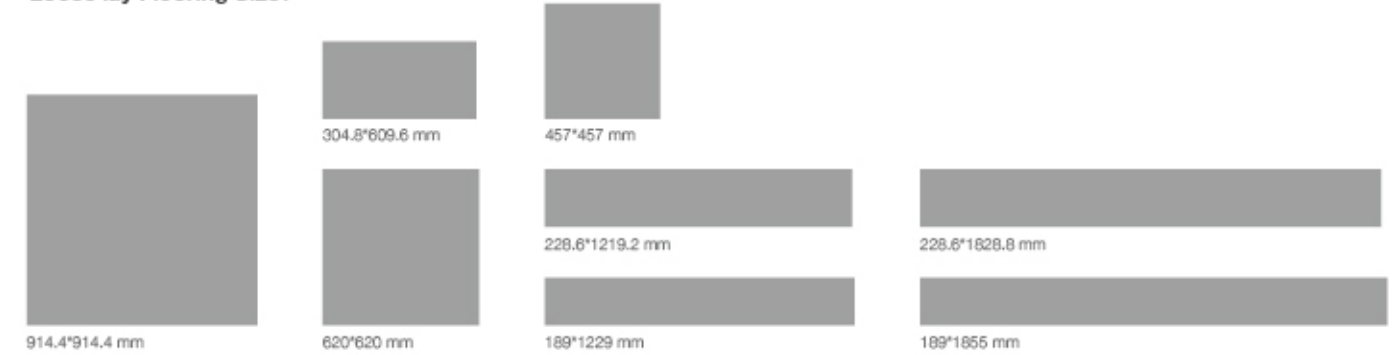
Product Specifications
Standard Sizes

RSVP Flooring / WPC Flooring Size:

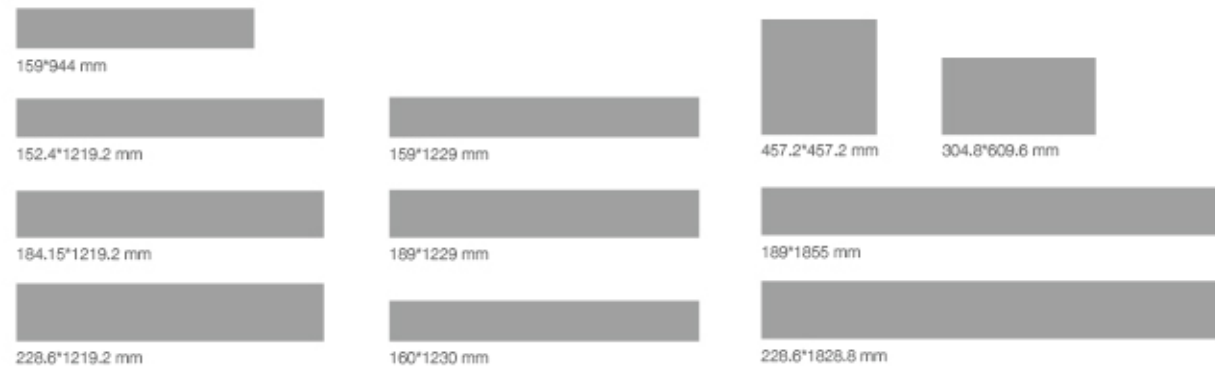


NOTE: width size range: 146-228mm (1m film width) length size range: maximum 1235mm (1.3m plate cylinder)

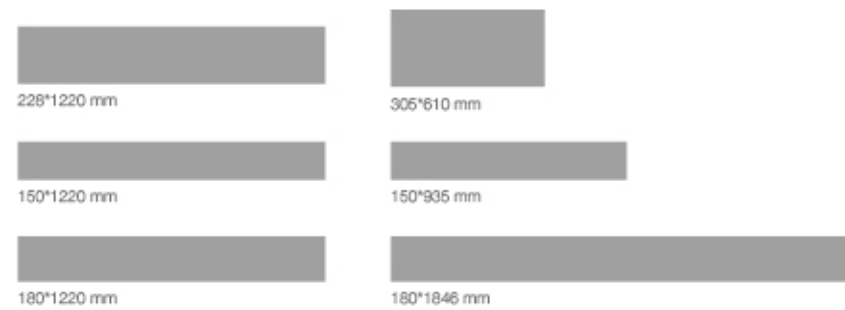
Loose lay Flooring Size:



Dry back Flooring Size:



LVT Click flooring size:



Peel & Stick Flooring Size:



Toxic Element Limit

Heavy Metals (mg/kg product) (Critical)	Chloroethylene (mg/kg)	GB/T 4085	≤5
	Total Lead (Pb)		≤100
	SOL Lead (Pb)		≤90
	SOL Mercury (Hg)		≤60
	SOL Chromium (Cr)	ASTM F983-11, CPSC-CH-E1002-08.8 section II.A	≤80
	SOL Arsenic (As)		≤25
	SOL Antimony (Sb)		≤80
	SOL Barium (Ba)		≤1000
	SOL Selenium (Se)		≤500
	SOL Cadmium (Cd)		≤75
Ortho-Phthalate Content (% w/w) (Critical)	TVOC (mg/m ³)	CDPH Standard Method V1.1-2010	Per Section 4.0; CDPH Standard Method V1.1-2010
	Formaldehyde emission (mg/m ³)	CDPH Standard Method V1.1-2010	Per Section 4.0; CDPH Standard Method V1.1-2010
Ortho-Phthalate Content (% w/w) (Critical)	Dibutyl phthalate (DBP)		Sum < 0.1% w/w
	D (2-ethyl hexyl) phthalate (DEHP)		
	Benzyl butyl phthalate (BBP)		
	Di-iso nonyl phthalate (DINP)		
	Di-n-OC Tyl-phthalate (DNOP)		
Ortho-Phthalate Content (% w/w) (Critical)	Di-iso-decyl phthalate (DIDP)	CPSC-CH-C001-09.3 with GC-MS analysis	Sum < 0.1% w/w
	DnHP(DHEXP), DiBP,DnPP(OPENP), DCHP		Sum < 0.1% w/w



Love the living room, love home

0301848



Love the living room, love home

0800190

Detail Texture Colour Wood

back to nature



0302632

Detail Texture Colour Wood
back to nature



0300823



0300827

Love the living room, love home



Love the kitchen, love home

Serene Opulent Stone

Pure Serenity



0301235



0302815



Deutsches
Institut
für
Bautechnik



BACK TO NATURE

Fashion & Environmental

To make contribution to the society with better quality, our products acquire the certificate of floorscore greenguard and DIBT.