



The Complete Collection



FIND YOUR STYLE WITH I UVANTO

Welcome to Luvanto, a specially selected range of Design Flooring with endless colour combinations, laying patterns and design features available to create a floor that makes a statement in any room.

Stunningly realistic, beautifully practical, incredibly hard wearing and surprisingly affordable.

Why should you choose Luvanto?

- A comprehensive range of products to suit every need.
- The perfect choice for professional floor fitters to accomplished DIYers.
- All Luvanto design flooring comes with a minimum 25-year domestic and 10-year commercial warranty for added peace of mind (Endure Pro - Lifetime domestic and 20-year commercial).
- Luvanto is hardwearing with a heavy duty 0.55mm wear layer (Endure Pro 0.7mm) and UV coating which means the floor will look as good as new for many years, even with the punishment of home living or in heavy trafficked areas.
- Stable It will not move or shrink as much as real wood flooring.
- Suitable for use with underfloor heating.
- Realistic and luxurious It looks so like real wood or stone it is hard to tell the difference.
 However, it is much warmer and more comfortable underfoot.
- Easy to maintain It needs very little ongoing maintenance- unlike real wood or stone floors there are no expensive polishes or lacquers needed.
- Right for every room It can be fitted in nearly every type of room including kitchens and bathrooms where there is a lot of moisture.
- One of the highest rated LVT products on the market for slip resistance which makes it very safe especially for the elderly or very young who might not be so steady on their feet.
- Surprisingly affordable it gives the expensive look of real wood or stone but without the large price tag and offers fantastic value for money.
- It is ideal for households with families and pets It's life-proof.
- 100% water resistant.
- Flame resistant.

Luvanto is a premium flooring product and is available to purchase via our nationwide network of premium independent retailers and contractors throughout the UK and Ireland.

We have excellent stock holdings, so you can be sure that as soon as you've made up your mind on the perfect floor for you, it will be delivered very quickly.

So, take a look at our range, select the right product for your needs and prepare to be inspired.

Best Wishes

The QA Luvanto team

Call us on 0151 495 3434 if you require assistance

QA Flooring Solutions Ltd

Unit 2, Hurricane Drive, Liverpool, L24 8RL. Tel: 0151 495 3434 | Fax: 0151 427 0484 Email: sales@gaflooringsolutions.com

www.luvanto.com

QUICK TIP



In a rush? Check out our full palette of colours from page 92.

LUVANTO KEY



Luvanto Design is an adhered range of Luxury Vinyl Tile (LVT) that requires professional installation. Our Luvanto Design range offers great flexibility giving you the option to create bespoke patterns and making use of our design strips to create elaborate borders and effects.

Luvanto Design Herringbone is a selection of small Luvanto Design planks that are glued down to the floor, offering amazing design options such as basketweave and parquet effects.

For more information see page 102-103.



Luvanto Click is the latest range of non-adhered, free floating, easy to lay LVT planks and tiles that click together to perform a perfect joint. We recommend you use an official Luvanto underlay to complete your Click flooring.

Luvanto Click Herringbone is a selection of medium Luvanto Click planks that cleverly click together in a traditional parquet pattern to give you that elegant herringbone effect.

For more information see page 104-105.



Luvanto Click Plus is produced using the latest Stone Plastic Composite (SPC) technology. A better, easier to install, non-adhered, free floating click system with an integrated acoustic underlay ensures that Click Plus always delivers a professional finish.

For more information see page 106-107.



Luvanto Pace is our new flooring range that is the fastest and, arguably, the easiest to lay. Each plank comes with a self-adhesive backing that is soaked into the built-in underlay. This means that any damaged planks can be up-lifted and quickly replaced due to the long life of the self-adhesive backing. Not only does this offer you similar design options as Luvanto Design but it also gives you a more forgiving installation and easier life-long maintenance.

For more information see page 108-109.



Luvanto Endure Pro is produced using the latest Stone Plastic Composite (SPC) technology. A better, easier to install, non-adhered, free floating click system with an integrated acoustic underlay ensures that Endure Pro always delivers a professional finish. Thanks to the clever technology inside, Endure Pro can be installed in most areas of direct sunlight without having to worry about issues in the future. Endure Pro can also be installed over most existing flooring.

For more information see page 110-111.

Traditional wood gives a room a rich, natural look that adds both warmth and style. If you are looking for a more modern look, stylish greys add a classy and contemporary feel.



Next day sample service available



ARCTIC MAPLE



View this flooring in your own home through the Luvanto room viewer on our website.









LAKESIDE ASH



View this flooring in your own home through the Luvanto room viewer on our website.













WHITE OAK



View this flooring in your own home through the Luvanto room viewer on our website.













PEARL OAK



View this flooring in your own home through the Luvanto room viewer on our website.













WASHED GREY OAK



View this flooring in your own home through the Luvanto room viewer on our website.













WINTER OAK



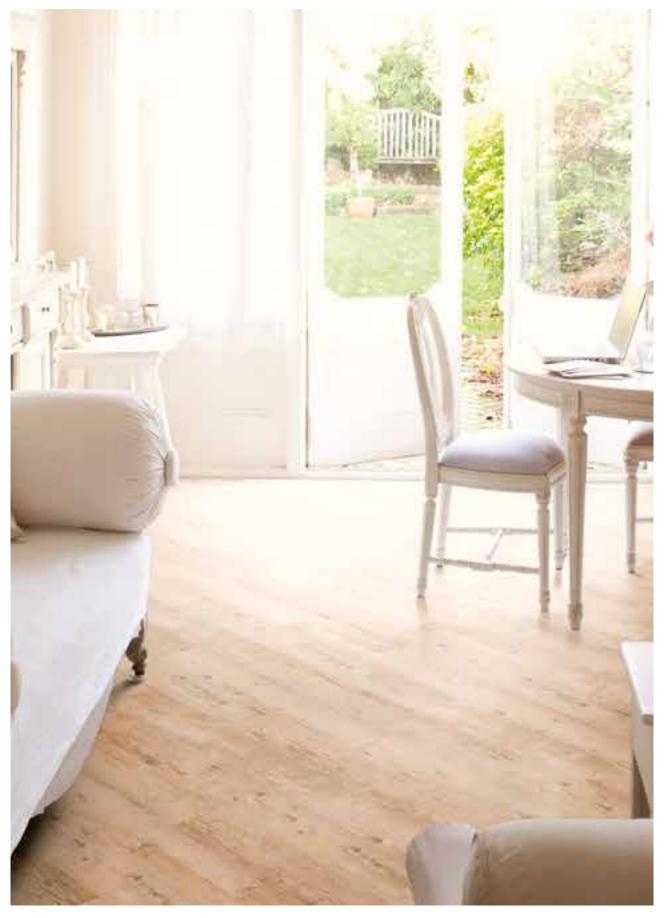
View this flooring in your own home through the Luvanto room viewer on our website.





Available in Design QAF-LVP-28 | Click Plus QAF-LKP-04 | Endure Pro QAF-LRP-09

BLEACHED LARCH



View this flooring in your own home through the Luvanto room viewer on our website.











NATURAL OAK



View this flooring in your own home through the Luvanto room viewer on our website.















COUNTRY OAK



View this flooring in your own home through the Luvanto room viewer on our website.



Available in Design QAF-LVP-12 & QAF-LVP-23, Design Herringbone QAF-DES-15, QAF-DES-01 & QAF-LVP-12 Click Herringbone QAF-LCH-04 | Click Plus QAF-LKP-02 | Endure Pro QAF-LRP-01

HARVEST OAK



View this flooring in your own home through the Luvanto room viewer on our website.









DISTRESSED OLIVE WOOD



View this flooring in your own home through the Luvanto room viewer on our website.











RECLAIMED OAK



View this flooring in your own home through the Luvanto room viewer on our website.















SUN BLEACHED SPRUCE



View this flooring in your own home through the Luvanto room viewer on our website.











NATURAL SAWN



View this flooring in your own home through the Luvanto room viewer on our website.



Available in Design QAF-LVP-15 | Click QAF-LCP-12

ANTIQUE OAK



View this flooring in your own home through the Luvanto room viewer on our website.









HARBOUR OAK



View this flooring in your own home through the Luvanto room viewer on our website.





Available in Design QAF-LVP-35, Design Herringbone QAF-DES-08 & QAF-LVP-35 Click QAF-LCP-21 | Click Plus QAF-LKP-16

SOLID MAPLE



View this flooring in your own home through the Luvanto room viewer on our website.









VINTAGE GREY OAK



View this flooring in your own home through the Luvanto room viewer on our website.









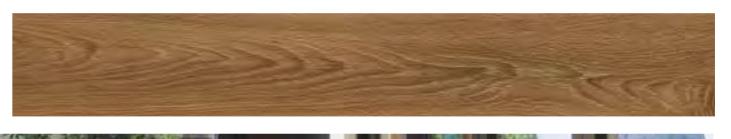


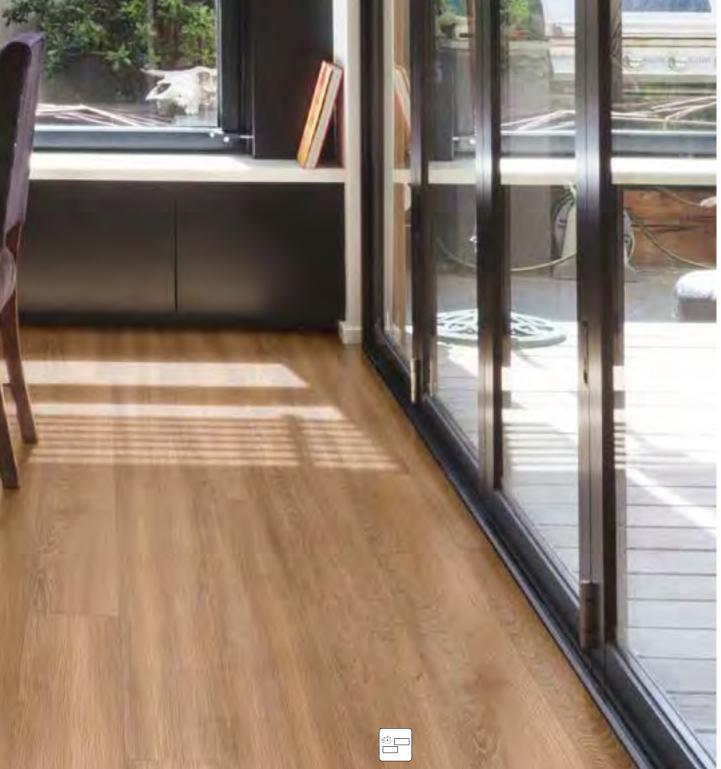


ROYAL CHESTNUT



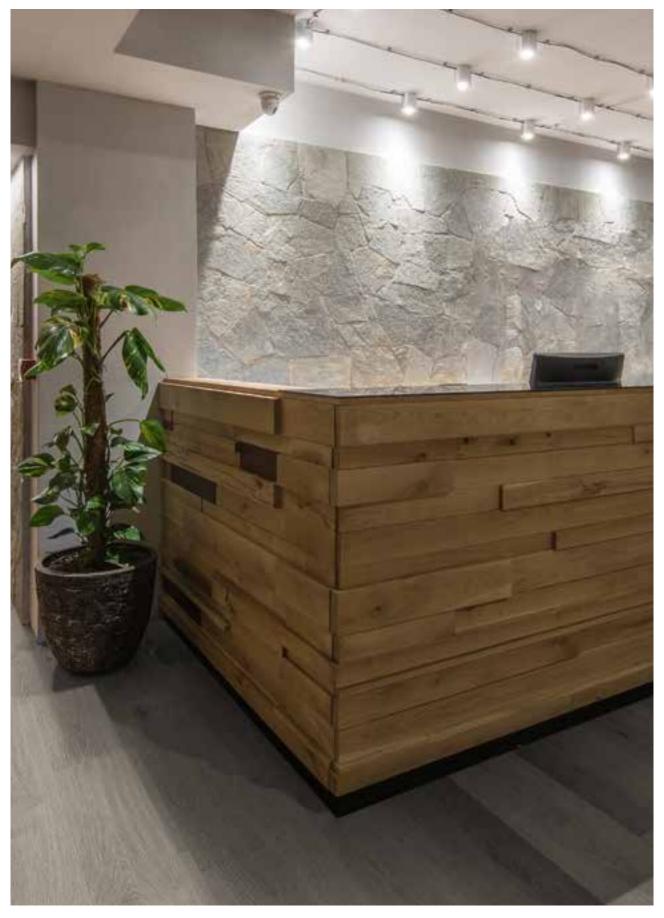
View this flooring in your own home through the Luvanto room viewer on our website.



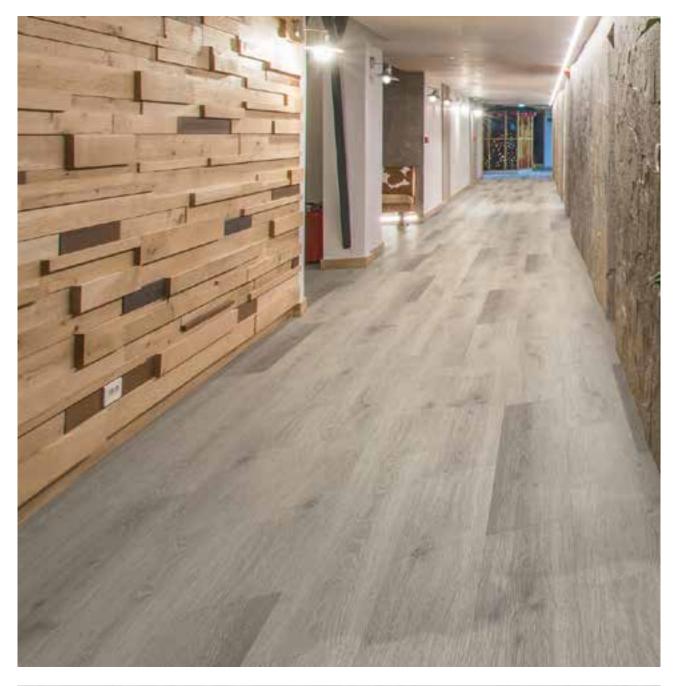


Available in Pace QAF-LPP-03

MISTY ELM



View this flooring in your own home through the Luvanto room viewer on our website.









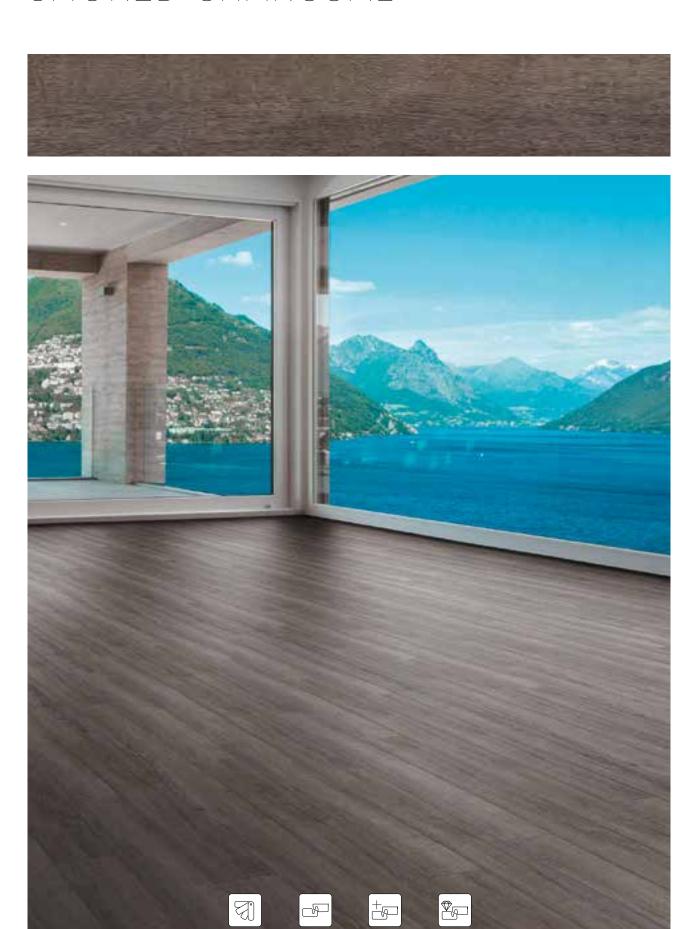
SMOKEY MAPLE





Available in Pace QAF-LPP-02

SMOKED CHARCOAL



Available in Design QAF-LVP-33, Design Herringbone QAF-DES-11, QAF-DES-07 & QAF-LVP-33 Click Herringbone QAF-LCH-07 | Click Plus QAF-LKP-07 | Endure Pro QAF-LRP-08

EBONY



View this flooring in your own home through the Luvanto room viewer on our website.













BLACK ASH



View this flooring in your own home through the Luvanto room viewer on our website.











HERRINGBONE DESIGNS

Durable luxury - you can be sure your Luvanto floor will look good for longer thanks to its tough, durable finish. It's also extremely easy to maintain, unlike natural floor finishes which often require expensive polishes or lacquers to preserve their appearance.



Next day sample service available



PEARL OAK



View this flooring in your own home through the Luvanto room viewer on our website.

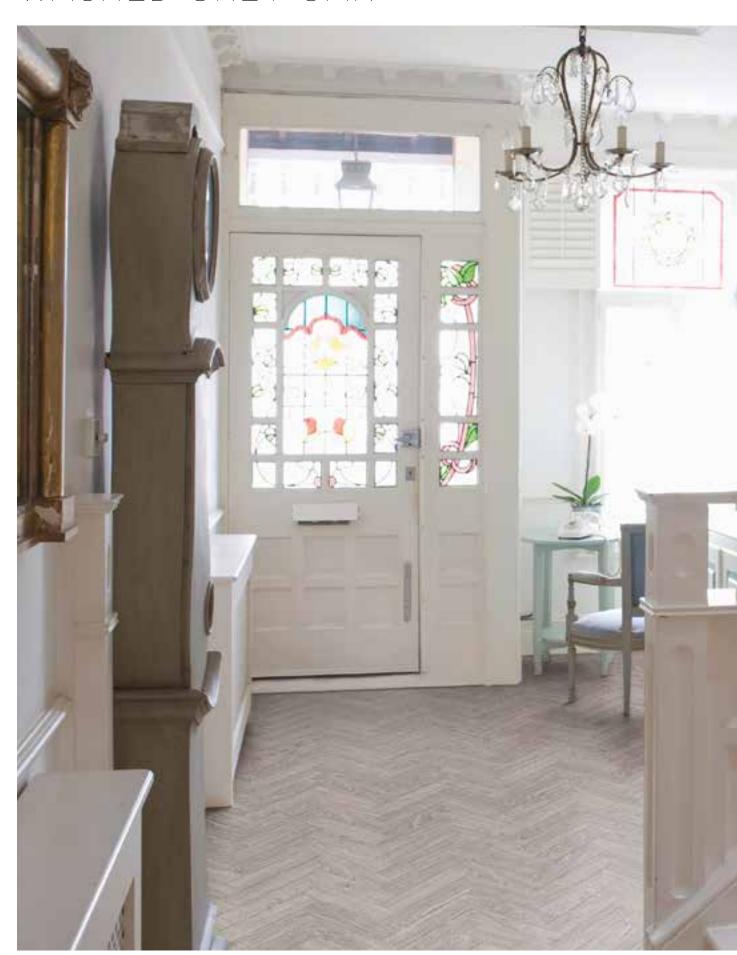




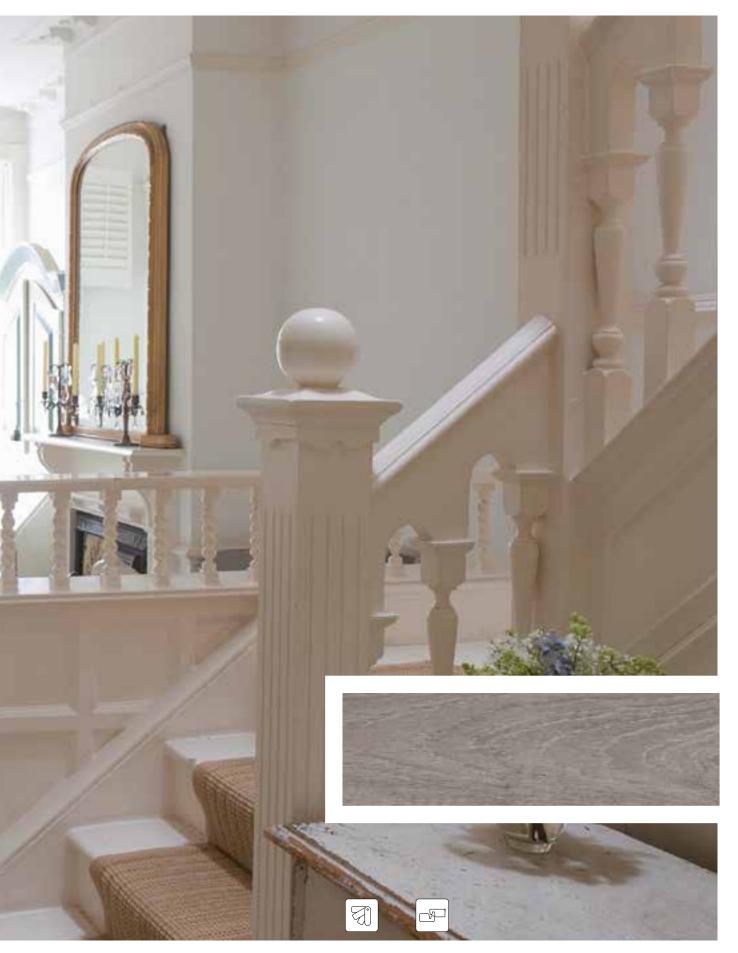




WASHED GREY OAK



View this flooring in your own home through the Luvanto room viewer on our website.



Available in Design Herringbone QAF-DES-17, QAF-DES-05 & QAF-LVP-11 | Click Herringbone QAF-LCH-02

NATURAL OAK



View this flooring in your own home through the Luvanto room viewer on our website.

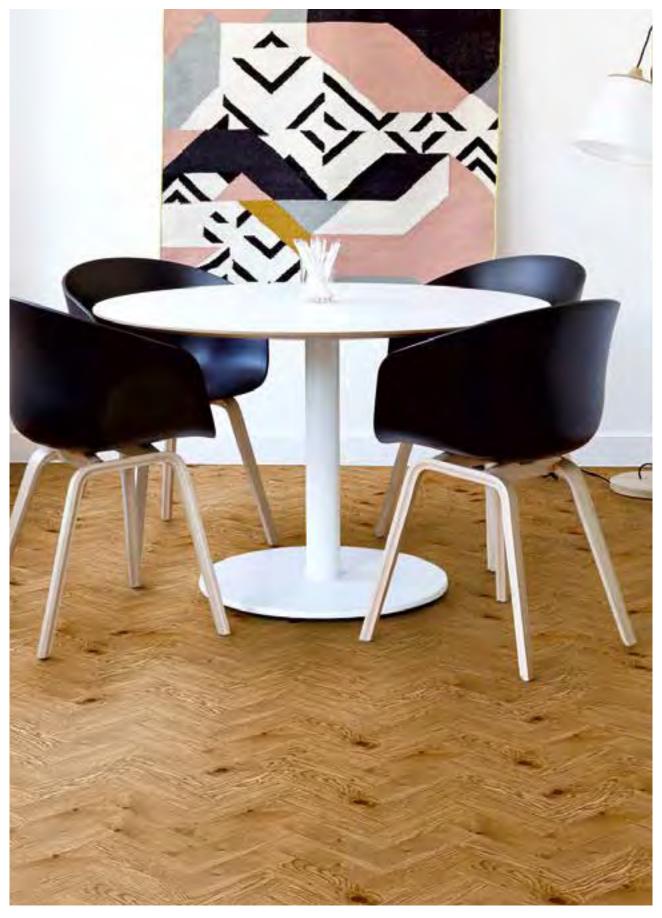








COUNTRY OAK



View this flooring in your own home through the Luvanto room viewer on our website.



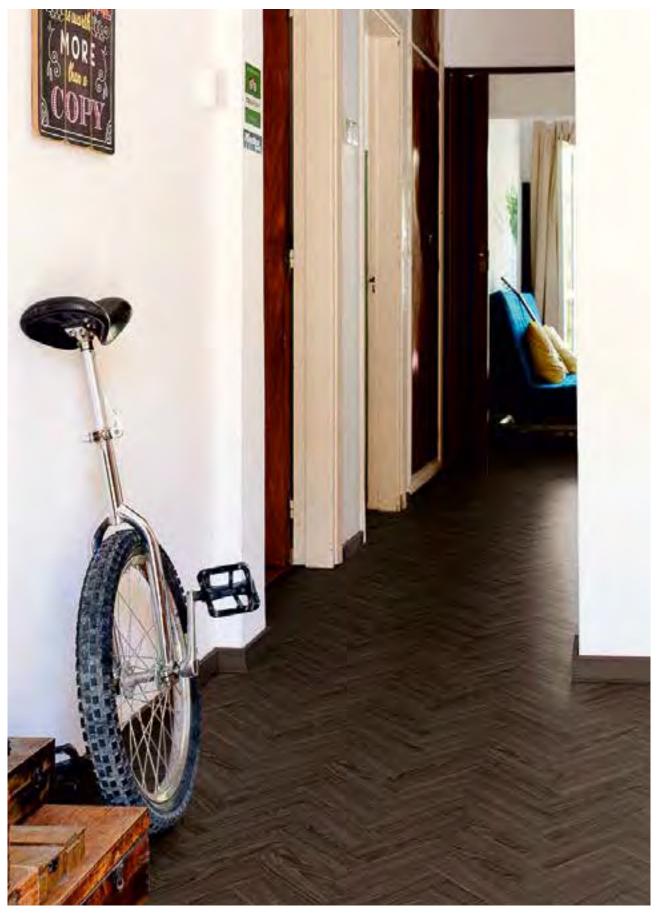








EBONY



View this flooring in your own home through the Luvanto room viewer on our website.









PRIORY OAK



View this flooring in your own home through the Luvanto room viewer on our website.









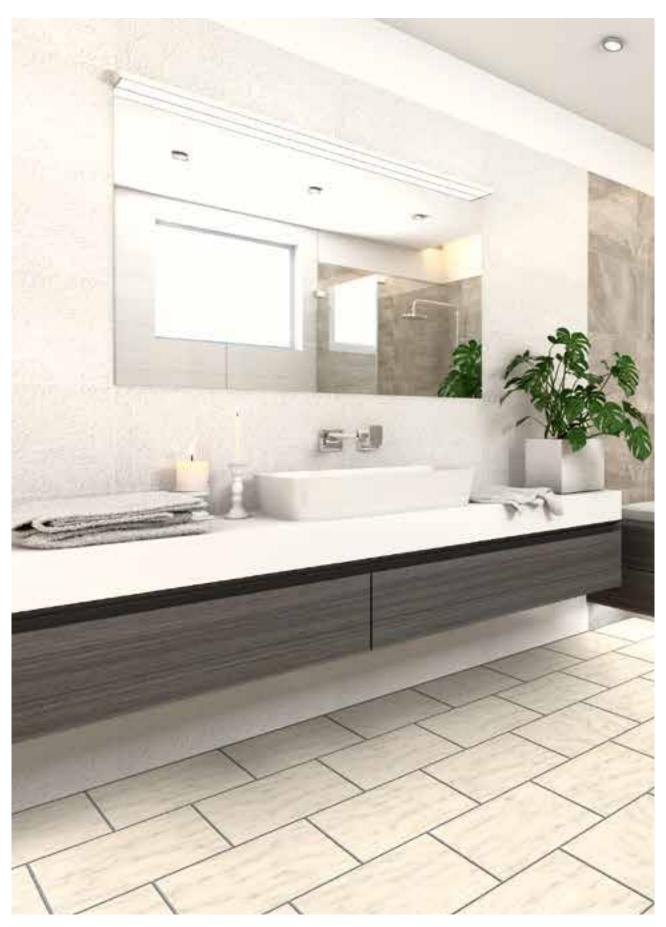
From classic tiles to edgy concretes, our range of stones and tiles offer fantastic flexibility to make a space your own.



Next day sample service available



WHITE PORCELAIN



View this flooring in your own home through the Luvanto room viewer on our website.



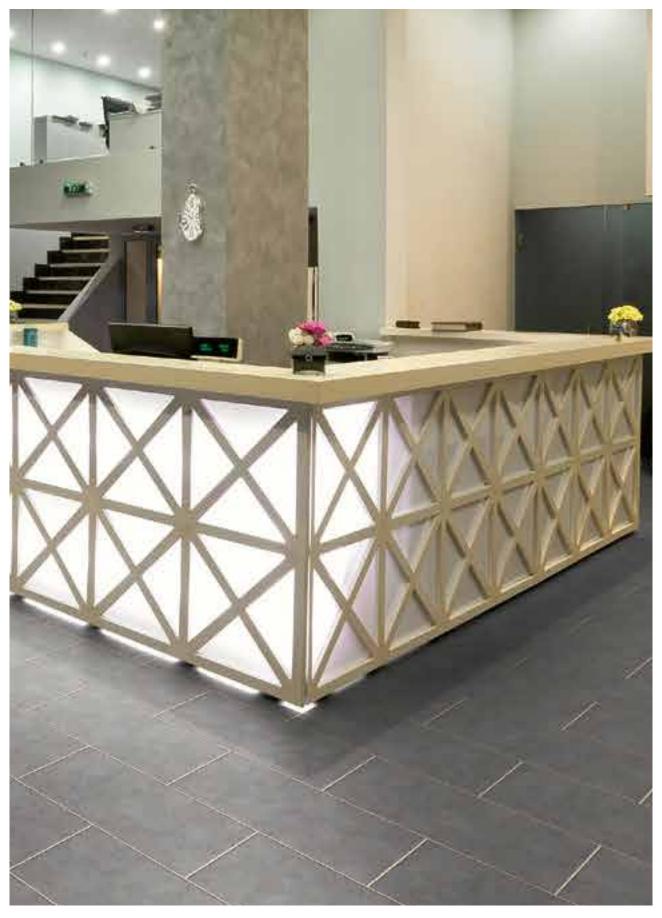
Featuring Black Design Strips. (Only available with Design Collection).







WARM GREY STONE



View this flooring in your own home through the Luvanto room viewer on our website.





Featuring Natural Design Strips. (Only available with Design Collection).











SILVER SLATE



View this flooring in your own home through the Luvanto room viewer on our website.



Available in Design QAF-LVT-13 | Click Plus QAF-LKT-01 | Endure Pro QAF-LRT-02

BLACK SLATE



View this flooring in your own home through the Luvanto room viewer on our website.



Featuring White Design Strips. (Only available with Design Collection).











Featuring White Design Strips.
(Only available with Design Collection).



View this flooring in your own home through the Luvanto room viewer on our website.



Available in Design QAF-LVT-16 | Click QAF-LCT-08

GREY SPARKLE



View this flooring in your own home through the Luvanto room viewer on our website.



Featuring White Design Strips. (Only available with Design Collection).



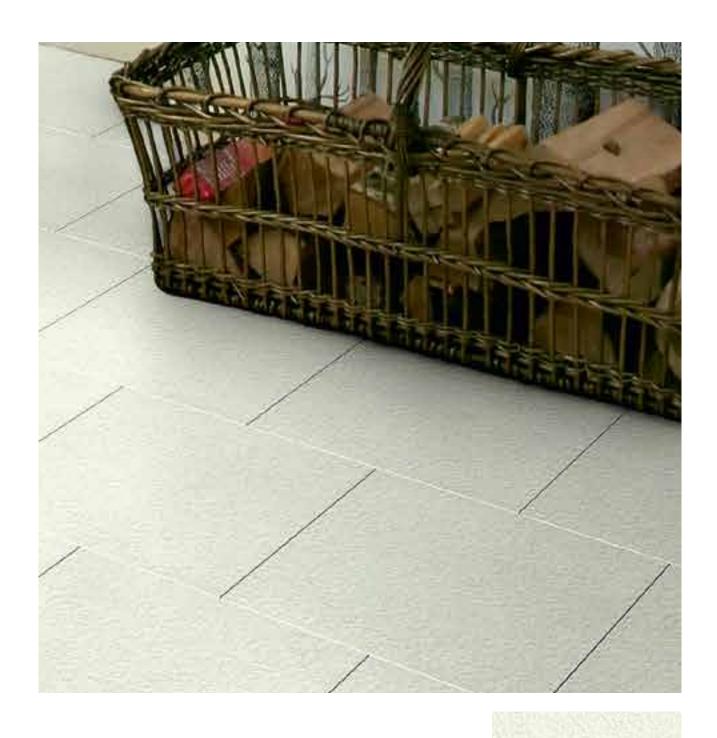




WHITE SPARKLE



View this flooring in your own home through the Luvanto room viewer on our website.

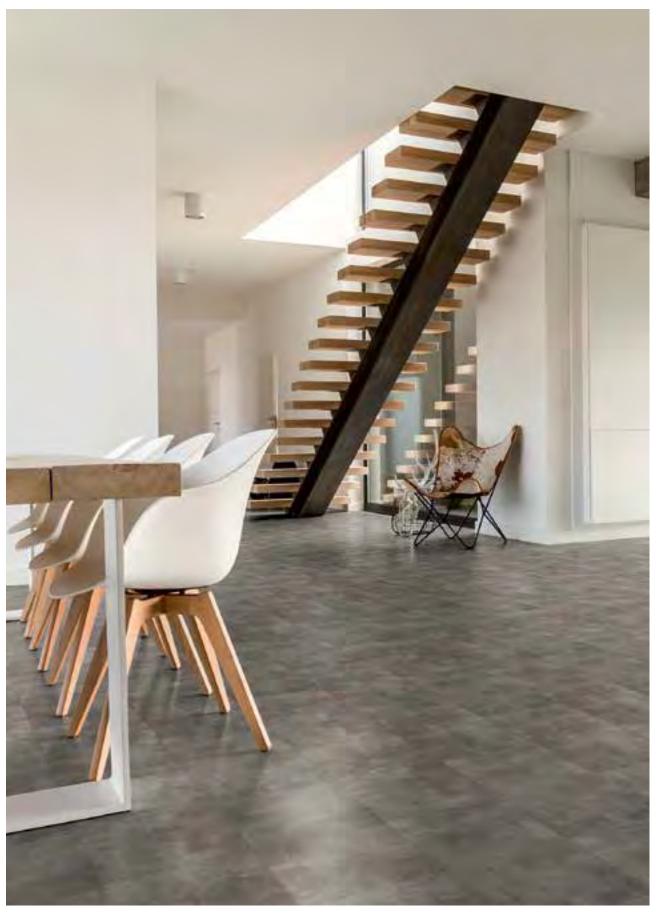


Click Sparkle Plank Sizes: 149mm x 935mm x 4mm





URBAN GREY



View this flooring in your own home through the Luvanto room viewer on our website.









WEATHERED CONCRETE



View this flooring in your own home through the Luvanto room viewer on our website.

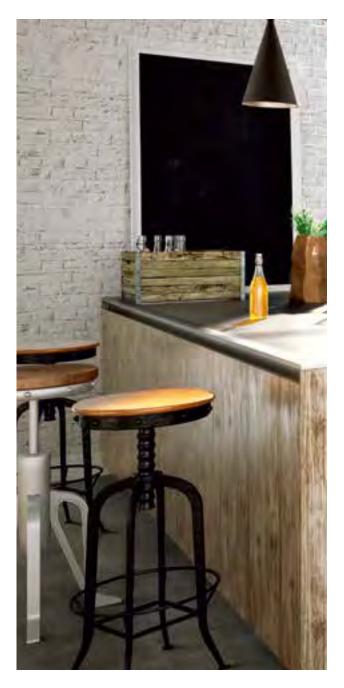


Available in Design QAF-LVT-25 | Click QAF-LCT-12 | Click Plus QAF-LKT-07

NEW CONCRETE



View this flooring in your own home through the Luvanto room viewer on our website.







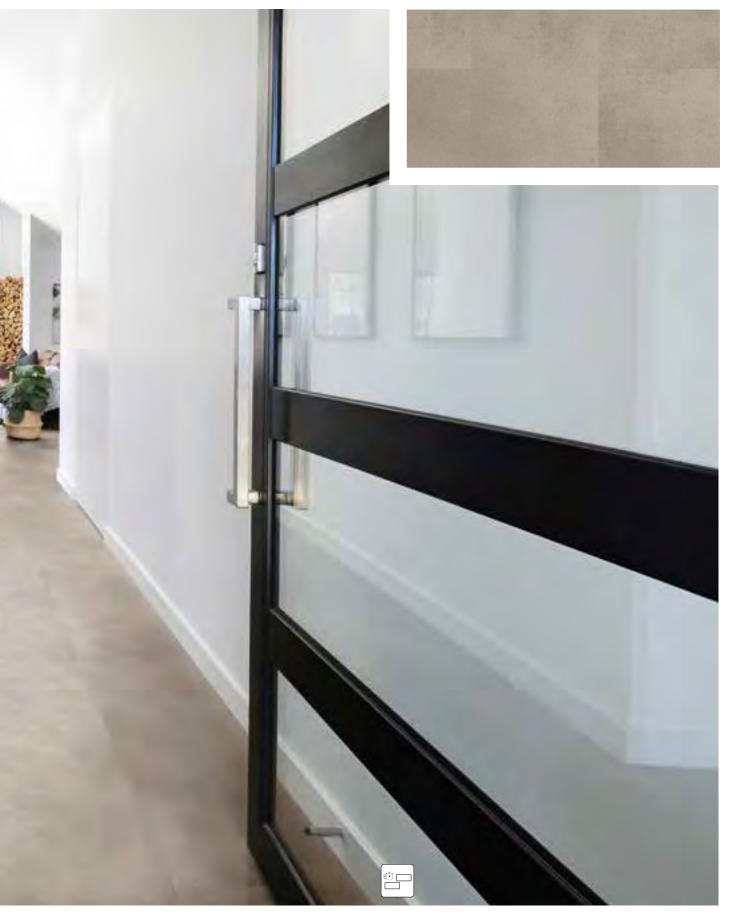




WASHED CONCRETE



View this flooring in your own home through the Luvanto room viewer on our website.

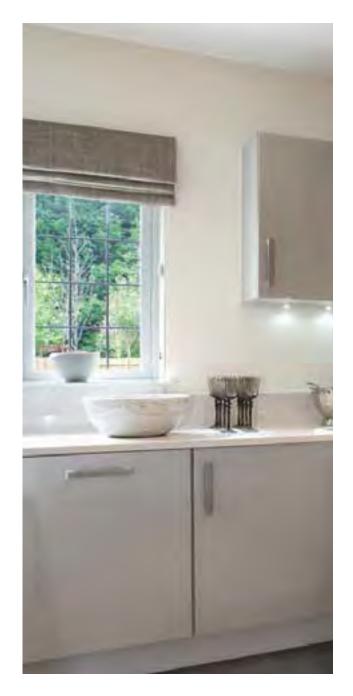


Available in | Pace QAF-LPT-01

NEW YORK GREY



View this flooring in your own home through the Luvanto room viewer on our website.









MIDNIGHT SILVER



View this flooring in your own home through the Luvanto room viewer on our website.









COLOURS &STYLES

Luvanto is a curated collection of stylish flooring colours that are designed to compliment interior design styles from the traditional to the cutting edge.

Next day sample service available



WOOD COLOURS



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LAKESIDE ASH PAGE 6



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WASHED GREY OAK PAGE 12, 54



WINTER OAK PAGE 14



BLEACHED LARCH PAGE 16



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HARVEST OAK PAGE 22



DISTRESSED OLIVE WOOD PAGE 24



RECLAIMED OAK PAGE 26



SUN BLEACHED SPRUCE PAGE 28



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WOOD COLOURS



ANTIQUE OAK PAGE 32



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ROYAL CHESTNUT PAGE 40



MISTY ELM PAGE 42



SMOKEY MAPLE PAGE 44



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STONE COLOURS



WHITE PORCELAIN

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WARM GREY STONE

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Available in



SILVER SLATE

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BLACK SLATE PAGE 72

Available in



WHITE SPARKLE

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A B

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URBAN GREY PAGE 80





WEATHERED CONCRETE PAGE 82







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WASHED CONCRETE

NEW CONCRETE

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ACCESSORIES

DESIGN STRIPS

Available in 3mm and 5mm widths with a slightly lower height of 2mm to imitate a traditional grout line appearance. Only to be used with Luvanto Design. 3mm Design Strips shown below.



BLACK

3mm QAF-LVD-03

5mm QAF-LVD-11



WHITE **3mm** QAF-LVD-04 **5mm** QAF-LVD-12



DUST **3mm** QAF-LVD-05 **5mm** QAF-LVD-13



SILVER

3mm QAF-LVD-06

5mm QAF-LVD-14



CHALK **3mm** QAF-LVD-23 **5mm** QAF-LVD-17



GRANITE SPARKLE **3mm** QAF-LVD-25 **5mm** QAF-LVD-19



GRANITE GREY **3mm** QAF-LVD-26 **5mm** QAF-LVD-20



WALNUT **3mm** QAF-LVD-28 **5mm** QAF-LVD-22

Photographs shown are for representation purpose only. Please request a sample for true reflection of colour.

FINISHING STRIPS

A self-adhesive aluminium strip which conceals the expansion gap between the flooring and the skirting board for a neat, professional finish. For use with Luvanto Click, Click+ and Endure Pro.

Dimensions: 2700mm x 16mm x 6mm

Code	Length	Qty/Carton	Colour
QAA-FSP-08	2.7m	10	Arctic Maple
QAA-FSP-13	2.7m	10	Lakeside Ash
QAA-FSP-01	2.7m	10	White Oak
QAA-FSP-16	2.7m	10	Pearl Oak
QAA-FSP-02	2.7m	10	Washed Grey Oak
QAA-FSP-21	2.7m	10	Winter Oak
QAA-FSP-10	2.7m	10	Bleached Larch
QAA-FSP-14	2.7m	10	Natural Oak
QAA-FSP-05	2.7m	10	Country Oak
QAA-FSP-06	2.7m	10	Harvest Oak
QAA-FSP-11	2.7m	10	Distressed Olive Wood
QAA-FSP-17	2.7m	10	Reclaimed Oak
QAA-FSP-20	2.7m	10	Sun Bleached Spruce
QAA-FSP-15	2.7m	10	Natural Sawn
QAA-FSP-07	2.7m	10	Antique Oak
QAA-FSP-12	2.7m	10	Harbour Oak
QAA-FSP-19	2.7m	10	Solid Maple
QAA-FSP-03	2.7m	10	Vintage Grey Oak
QAA-FSP-18	2.7m	10	Smoked Charcoal
QAA-FSP-04	2.7m	10	Ebony
QAA-FSP-09	2.7m	10	Black Ash
QAA-FST-06	2.7m	10	White Porcelain
QAA-FST-05	2.7III 2.7m	10	Warm Grey Stone
QAA-FST-04	2.7m	10	Silver Slate
QAA-FST-02	2.7m	10	Black Slate
QAA-FST-07	2.7m	10	Urban Grey
QAA-FST-08	2.7m	10	Weathered Concrete
QAA-FST-09	2.7m	10	New Concrete
QAA-FST-10	2.7m	10	Midnight Silver
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LUVANTO DESIGN & DESIGN HERRINGBONE

Luvanto Design is one of our spectacular flooring ranges. It includes wood effect planks and stone tile effect products. This range is most popular for using your own creativity whether it be in the kitchen, living room, bathroom or anywhere else in the home

Luvanto Design is an adhered range of Luxury Vinyl Tile (LVT) that requires professional installation. It is extremely stable, strong and hard wearing which means it is safe to use in areas subject to temperature changes such as conservatories or in front of large glass panelled doors (when installed with the recommended adhesive) and will look as good as new for many years.

Our Luvanto Design range offers great flexibility giving you the option to create bespoke patterns and making use of our design strips to create elaborate borders and effects.

Luvanto Design Herringbone is a selection of different sized Luvanto Design planks that offer amazing design options such as basketweave and parquet effects.

This particular range does not shrink or expand as much as laminate flooring, so it is safe for using underfloor heating – a perfect addition to your bathroom or living room floor.

DESIGN & DESIGN HERRINGBONE TECHNICAL SPECIFICATION























Characteristics	Test Method	Design		
Warranty (Years)	-	Domestic 25 / Commercial 10		
Level of Use	EN685	Heavy Domestic 23 Heavy Commercial 33		
Total Thickness	EN428	2.5mm		
Wear Layer	EN429	0.55mm		
Total Weight	EN430	4.55kg/m²		
Dimensions (Planks)	EN427	152mm x 914mm 184mm x 1219mm		
Dimensions (Sparkle)	EN427	305mm x 305mm		
Dimensions (Tiles)	EN427	305mm x 305mm 305mm x 610mm		
Dimensions (Herringbone)	EN427	76.2mm x 304.8mm 107mm x 534mm / 152mm x 914mm		
Surface Treatment	-	PU		
Sound Reduction	ISO 10140-3/ISO717-2	4dB		
Slip Resistance	DIN 51130	R10		
Pendulum Test	BS7976-2:2002	Dry 62 (Low) / Wet 50 (Low)		
Abrasion Resistance	EN660-2	Wear Group P		
Residual Indentation	EN433	<0.1mm		
Castor Chair Resistance	EN425/ISO 4918 25000 cycles	Pass		
Colour Fastness to Light	ISO 105 B02	>6		
Dimensional Stability	EN434	<0.25%		
Squareness and Straightness	EN427	<0.12mm / <0.15mm		
Stain Resistance	EN423	Pass		
Flammability	EN13501-1:2007	Bfl-S1		
Formaldehyde Emission	EN14041:2004	Class E1		
Fungi Resistance	ISO846	Growth Intensity 0		
Water Resistant	-	100%		
VOC Emission	-	A+		
REACH	EC No 1907/2006	Pass		
Underfloor Heating	-	Suitable, Max 27°C		

Product	Size	Pack Coverage	Pieces Per Pack	Boxes Per Pallet	Bevelled Edge
Design - Small Planks	152mm x 914mm x 2.5mm	3.34m ²	24	42	Bevel
Design - Large Planks	184mm x 1219mm x 2.5mm	3.59m ²	16	40	Bevel
Design - Square Tile	305mm x 305mm x 2.5mm	1.86m²	20	81	Bevel
Design - Rectangle Tile	305mm x 610mm x 2.5mm	3.34m ²	18	42	Bevel
Design - Traditional Herringbone	76.2mm x 304.8mm x 2.5mm	2.32m ²	100	63	Bevel
Design - Contemporary Herringbone	107mm x 534mm x 2.5mm	2.28m ²	40	56	Bevel
Design - Large Plank Herringbone	152mm x 914mm x 2.5mm	3.34m ²	24	42	Bevel



LUVANTO CLICK & CLICK HERRINGBONE

The Luvanto Click range is our fast, hassle-free fitted flooring with the newest click technology system. You can walk on your new luxurious flooring straight away, eliminating the use of glue – something that is incredibly popular with DIY fitters.

This range can be used in most rooms but is extremely popular to use in bathrooms and kitchens due to it being 100% waterproof.

The Luvanto Click range with a high slip resistance is extremely safe for your family - very handy if you are elderly or have small children who are just finding their feet.

Luvanto Click Herringbone is a selection of Luvanto Click planks that cleverly click together in a traditional parquet pattern to give you that elegant herringbone effect.

Another perk of Luvanto Click and Click Herringbone is that, when fitted with a SoundClick underlay the floor will become much quieter to walk on, perfect for those loud families or upper floor apartments.

- Easy to install it has the 2G click system which is strong & reliable. It is also easy to cut without the need for specialist tools.
- Minimum disruption You can walk on the floor and put furniture back in the room again straight away after laying the new floor.
- A more affordable option to fully adhered Luvanto Design systems.
- Not suitable for areas with a lot of exposure to direct sunlight e.g., conservatories, sky lights and large patio/bi-fold doors.

CLICK & CLICK HERRINGBONE TECHNICAL SPECIFICATION





















Characteristics	Test Method	Click		
Warranty (Years)	-	Domestic 25 / Commercial 10		
Level of Use	EN685	Heavy Domestic 23 Heavy Commercial 32		
Total Thickness	EN428	4.0mm		
Wear Layer	EN429	0.55mm		
Total Weight	EN430	8.15kg/m²		
Dimensions (Planks)	EN427	180mm x 1220mm		
Dimensions (Sparkle)	EN427	149mm x 935mm		
Dimensions (Tiles)	EN427	305mm x 610mm		
Dimensions (Herringbone)	EN427	149mm x 596mm		
Surface Treatment	-	PU		
Sound Reduction	ISO 10140-3/ISO717-2	4dB		
Slip Resistance	DIN 51130	R10		
Pendulum Test	BS7976-2:2002	Dry 62 (Low) / Wet 50 (Low)		
Abrasion Resistance	EN660-2	Wear Group P		
Residual Indentation	EN433	<0.1mm		
Castor Chair Resistance	EN425/ISO 4918 25000 cycles	Pass		
Colour Fastness to Light	ISO 105 B02	>6		
Dimensional Stability	EN434	<0.25%		
Squareness and Straightness	EN427	<0.07mm / <0.10mm		
Stain Resistance	EN423	Pass		
Flammability	EN13501-1:2007	Bfl-S1		
Formaldehyde Emission	EN14041:2004	Class E1		
Fungi Resistance	ISO846	Growth Intensity 0		
Water Resistant	-	100%		
VOC Emission	-	A+		
REACH	EC No 1907/2006	Pass		
Underfloor Heating	-	Suitable, Max 27°C		

Product	Size	Pack Coverage	Pieces Per Pack	Boxes Per Pallet	Bevelled Edge
Click - Planks	180mm x 1220mm x 4.0mm	2.20m ²	10	40	Micro-Bevel
Click - Tiles	305mm x 610mm x 4.0mm	2.22m ²	12	36	Micro-Bevel
Click - Sparkle	149mm x 935mm x 4.0mm	1.67m ²	12	42	Micro-Bevel
Click - Herringbone	149mm x 596mm x 4.0mm	2.13m²	24	36	Micro-Bevel



LUVANTO CLICK+

Luvanto Click+ is our new and improved range of click together flooring.

It has all the fast, hassle-free benefits of Click along with the newest click technology system, but with the added benefit of built-in underlay.

The integral underlay on Click+ provides a 21dB impact sound reduction. This is especially useful in settings where noise can cause issues and saves on potentially buying additional sound proofing products.

A complete easy-to-fit product in one.

- This range can be used in most rooms but is extremely popular to use in bathrooms and kitchens due to it being 100% waterproof.
- The Luvanto Click+ range with a high slip resistance is extremely safe for your family - very handy if you are elderly or have small children who are just finding their feet.
- Easy to install it has the 2G click system which is strong & reliable. It is also easy to cut without the need for specialist tools.
- Minimum disruption You can walk on the floor and put furniture back in the room again straight away after laying the new floor.
- A more affordable option to fully adhered Luvanto Design systems.
- You can walk on your new luxurious flooring straight away, eliminating the use of glue something that is incredibly popular with DIY fitters.
- Not suitable for areas with a lot of exposure to direct sunlight e.g., conservatories, sky lights and large patio/bi-fold doors.

CLICK+ TECHNICAL SPECIFICATION

























Characteristics	Test Method	Click+
Warranty (Years)	-	Domestic 25 / Commercial 10
Level of Use	EN685	Heavy Domestic 23 Heavy Commercial 33
Total Thickness	EN428	5.0mm (including 1.0mm IXPE underlay)
Wear Layer	EN429	0.55mm
Total Weight	EN430	8.18kg/m ²
Dimensions (Planks)	EN427	180mm x 1220mm
Dimensions (Sparkle)	EN427	-
Dimensions (Tiles)	EN427	305mm x 610mm
Dimensions (Herringbone)	EN427	
Surface Treatment	-	PU
Sound Reduction	ISO 10140-3/ISO717-2	21dB
Slip Resistance	DIN 51130	R10
Pendulum Test	BS7976-2:2002	Dry 62 (Low) / Wet 50 (Low)
Abrasion Resistance	EN660-2	Wear Group P
Residual Indentation	EN433	<0.1mm
Castor Chair Resistance	EN425/ISO 4918 25000 cycles	Pass
Colour Fastness to Light	ISO 105 B02	>6
Dimensional Stability	EN434	<0.25%
Squareness and Straightness	EN427	<0.08mm / <0.10mm
Stain Resistance	EN423	Pass
Flammability	EN13501-1:2007	Bfl-S1
Formaldehyde Emission	EN14041:2004	Class E1
Fungi Resistance	ISO846	Growth Intensity 0
Water Resistant	-	100%
VOC Emission	-	A+
REACH	EC No 1907/2006	Pass
Underfloor Heating	-	Suitable, Max 27°C

Product	Size	Pack Coverage	Pieces Per Pack	Boxes Per Pallet	Bevelled Edge
Click+ - Planks	180mm x 1220mm x 5.0mm	2.20m ²	10	35	Micro-Bevel
Click+ - Tiles	305mm x 610mm x 5.0mm	2.22m ²	12	36	Micro-Bevel



LUVANTO PACE

Luvanto Pace is our latest flooring range that is the fastest and, arguably, the easiest to lay. Each plank comes with a self-adhesive backing that is soaked into the built-in underlay. This means that any damaged planks can be lifted and quickly replaced due to the long life of the self-adhesive backing.

Not only does this offer you similar design options as Luvanto Design but it also gives you a more forgiving installation and easier life-long maintenance. Ideal for commercial projects.

- Self-adhesive system -This will save time and money on adhesive and installation. It is also 50% quicker to install thus saving on labour costs.
- Easy to re-fit- If there are any issues under the floor or with an individual plank being damaged this can be easily replaced without having to unclick the entire floor.
- Suitable for many different subfloors -This product can be installed over existing chipboard, ceramic and porcelain floors providing the subfloor is level, flat and free of dust. This will save time and additional labour on removing the original floor.
- Excellent design capability. Can be cut and shaped to achieve your desired patterns and layouts in the same way as Luvanto Design.
- Dimensionally stable-it is suitable to be installed in areas of direct sunlight (except conservatories) and only needs a 2mm expansion gap.
- Doesn't need acclimatisation before installation, so very easy for contractors to fit within their timescale.
- Passes the castor wheel, chair test so ideal for office areas.
- Built in underlay which provides 20dB impact sound reduction. This reduces noise issues for and saves on potentially buying additional sound proofing products.

PACE TECHNICAL SPECIFICATION























Characteristics	Test Method	Pace
Warranty (Years)	-	Domestic 25 / Commercial 10
Level of Use	EN685	Heavy Domestic 23 Heavy Commercial 33 Light Industrial 41
Total Thickness	EN428	4mm
Wear Layer	EN429	0.55mm
Total Weight	EN430	7.48kg/m²
Dimensions (Planks)	EN427	184mm x 1219mm
Dimensions (Sparkle)	EN427	-
Dimensions (Tiles)	EN427	305mm x 610mm
Dimensions (Herringbone)	EN427	
Surface Treatment	-	PU
Sound Reduction	ISO 10140-3/ISO717-2	20dB
Slip Resistance	DIN 51130	R10
Pendulum Test	BS7976-2:2002	Dry 62 (Low) / Wet 38 (Low)
Abrasion Resistance	EN660-2	Wear Group P
Residual Indentation	EN433	<0.1mm
Castor Chair Resistance	EN425/ISO 4918 25000 cycles	Pass
Colour Fastness to Light	ISO 105 B02	>6
Dimensional Stability	EN434	<0.25%
Squareness and Straightness	EN427	<0.08mm / <0.10mm
Stain Resistance	EN423	Pass
Flammability	EN13501-1:2007	Bfl-S1
Formaldehyde Emission	EN14041:2004	Class E1
Fungi Resistance	ISO846	Growth Intensity 0
Water Resistant	-	100%
VOC Emission	-	A+
REACH	EC No 1907/2006	Pass
Underfloor Heating	-	Suitable, Max 29°C

Product	Size	Pack Coverage	Pieces Per Pack	Boxes Per Pallet	Bevelled Edge
Pace - Planks	184mm x 1219mm x 4.0mm	2.69m²	12	60	Micro-Bevel
Pace - Tiles	305mm x 610mm x 4.0mm	2.60m ²	14	66	Micro-Bevel



LUVANTO ENDURE PRO

Luvanto Endure Pro is known as the new generation of luxury design flooring. With a popular range of stylish colours, we have something for everyone.

Luvanto Endure Pro is produced using the latest Stone Plastic Composite (SPC) technology. With a better, easier to install, non-adhered, free floating click system, Endure Pro always delivers a professional finish.

With a lifetime domestic warranty, a tough 0.7mm wear layer, and acoustic backing for maximum sound reduction, Endure Pro is in a league of its own.

Thanks to the clever technology inside, Endure Pro can be installed in most areas of direct sunlight without having to worry about issues in the future. Endure Pro can also be installed over most existing hard flooring.

What makes Endure Pro so great?

- One product for all areas of domestic and commercial use.
- Easy to install It has a strong reliable drop clicking system which is easy to fit together. It is also easy to cut without the need for specialist tools.
- Minimum disruption You can walk on the new floor and out the furniture back in the room straight away after laying the new floor.



- Endure Pro does not expand with heating and cooling, which means it can be installed with only a 2mm expansion gap and in areas of direct sunlight, such as conservatories and rooms with large patio doors.
- Up to 600m² can be installed without leaving any expansion joints. Expansion gaps can be sealed with a low modulus silicon.
- Quiet to walk on, Endure Pro has an integrated acoustic backing which provides one of the highest ratings on the market 22dB of sound reduction without having to use an extra underlay.
- The built-in underlay means it can be installed over most existing hard flooring surfaces saving time and money.
- Right for every room it can be fitted in every type of room including kitchens and bathrooms where there is a lot of moisture.
- Endure Pro has a tough 0.7mm wear layer which makes it one of the most hardwearing and scratch resistant LVT's available.
- Complete peace of mind. Endure Pro is one of the best LVT products on the market, it has the longest warranty on the market (lifetime domestic and 20 years commercial).

LUVANTO ENDURE PRO TECHNICAL SPECIFICATION





























Characteristics	Test Method	Endure Pro
Warranty (Years)	-	Domestic Lifetime / Commercial 20
Level of Use	EN685	Heavy Domestic 23 Heavy Commercial 34
Total Thickness	EN428	6.0mm (including 1.0mm IXPE underlay)
Wear Layer	EN429	0.7mm
Total Weight	EN430	8.63kg/m ²
Dimensions (Planks)	EN427	181mm x 1220mm
Dimensions (Sparkle)	EN427	-
Dimensions (Tiles)	EN427	305mm x 610mm
Dimensions (Herringbone)	EN427	-
Surface Treatment	-	PU
Sound Reduction	ISO 10140-3/ISO717-2	22dB
Slip Resistance	DIN 51130	R10
Pendulum Test	BS7976-2:2002	Dry 62 (Low) / Wet 38 (Low)
Abrasion Resistance	EN660-2	Wear Group T
Residual Indentation	EN433	<0.1mm
Castor Chair Resistance	EN425/ISO 4918 25000 cycles	Pass
Colour Fastness to Light	ISO 105 B02	>6
Dimensional Stability	EN434	<0.15%
Squareness and Straightness	EN427	<0.08mm / <0.10mm
Stain Resistance	EN423	Pass
Flammability	EN13501-1:2007	Bfl-S1
Formaldehyde Emission	EN14041:2004	Class E1
Fungi Resistance	ISO846	Growth Intensity 0
Water Resistant	-	100%
VOC Emission	-	A+
REACH	EC No 1907/2006	Pass
Underfloor Heating	-	Suitable, Max 29°C

Product	Size Pack Coverag		Pieces Per Pack	Boxes Per Pallet	Bevelled Edge	
Endure Pro - Planks	181mm x 1220mm x 6.0mm	2.21m ²	10	30	Micro-Bevel	
Endure Pro - Tiles	305mm x 610mm x 6.0mm	1.86m²	10	36	Micro-Bevel	

TECHNICAL INFORMATION

Technical Information	Test Method	Des	ign		Clie	ck	
Warranty (Years)	-	Domestic 25 Commercial 10	25 YEARS	10 YEARS	Domestic 25 Commercial 10	25 YEARS	(10)
Level of Use	EN685	Heavy Domestic 23 Heavy Commercial 33	Domestic warranty	Commercial warranty	Heavy Domestic 23 Heavy Commercial 32	Domestic warranty	Commercial warranty
Total Thickness	EN428	2.5mm			4.0mm		000
Wear Layer	EN429	0.55mm	0.55mm Wear layer	100% Vater resistant	0.55mm	0.55mm Wear layer	100% Water resistant
Total Weight	EN430	4.55kg/m ²		p resistance R10	8.15kg/m²		Slip resistance R10
Dimensions (Planks)	EN427	152mm x 914mm 184mm x 1219mm	P	DRY WET Pendulum test	180mm x 1220mm	Bevelled edge	DRY WET Pendulum test BS7976-2 2002
Dimensions (Sparkle)	EN427	305mm x 305mm			149mm x 935mm		
Dimensions (Tiles)	EN427	305mm x 305mm 305mm x 610mm		dB bund Reduction	305mm x 610mm	Suitable for underfloor heating	Sound Reduction
Dimensions (Herringbone)	EN427	76.2mm x 304.8mm 107mm x 534mm 152mm x 914mm			149mm x 596mm	Heavy contract	
Surface Treatment	-	PU Heavy contract Fire resist B _H -s1		Fire resistant B _{fl} -s1	PU	Heavy contract rating	Fire resistant B _{fl} -s1
Sound Reduction	ISO 10140-3/ ISO717-2	4dB		4dB			
Slip Resistance	DIN 51130	R10	Suitable for all rooms		R10		
Pendulum Test	BS7976-2:2002	Dry 62 (Low) Wet 50 (Low)			Dry 62 (Low) Wet 50 (Low)		
Abrasion Resistance	EN660-2	Wear Group P			Wear Group P		
Residual Indentation	EN433	<0.1mm			<0.1mm		
Castor Chair Resistance	EN425/ISO 4918 25000 cycles	Pass			Pass		
Colour Fastness to Light	ISO 105 B02	>6			>6		
Dimensional Stability	EN434	<0.25%			<0.25%		
Squareness and Straightness	EN427	<0.12mm / <0.15mm			<0.07mm / <0.10mm		
Stain Resistance	EN423	Pass			Pass		
Flammability	EN13501-1:2007	Bfl-S1	ifI-S1		Bfl-S1		
Formaldehyde Emission	EN14041:2004	Class E1			Class E1		
Fungi Resistance	ISO846	Growth Intensity 0		Growth Intensity 0			
Water Resistant	-	100%			100%		
VOC Emission	-	A+			A+		
REACH	EC No 1907/2006	Pass			Pass		
Underfloor Heating	-	Suitable, Max 27°C			Suitable, Max 27°C		

Produced to the following standards: ISO 9001; ISO 14001; CE.

Clic	:k+		Pac	ce		Endur	e Pro
Domestic 25 Commercial 10 Heavy Domestic 23 Heavy Commercial 33	Domestic warranty	Commercial warranty	Domestic 25 Commercial 10 Heavy Domestic 23 Heavy Commercial 33 Light Industrial 41	Domestic warranty	Vears Commercial warranty	Domestic Lifetime Commercial 20 Heavy Domestic 23 Heavy Commercial 34	Domestic warranty Commercial warranty
5.0mm (including 1.0mm IXPE underlay) 0.55mm	0.55mm Wear layer	100% Water resistant	4.0mm 0.55mm	0.55mm Wear layer	100% Water resistant	6.0mm (including 1.0mm IXPE underlay) 0.7mm	O.7mm Wear layer War resistant
8.18kg/m² 180mm x 1220mm	Bevelled edge	Slip resistance R10 -(2) -(3) -(4) -(50) DRY WET Pendulum test BS7976-2 2002	7.48kg/m² 184mm x 1219mm	Bevelled edge	Slip resistance R10	8.63kg/m² 181mm x 1220mm	Bevelled edge Slip resistance RIO DRY WET Pendulum test BS7976-2 2002
- 305mm x 610mm	Suitable for underfloor heating	Sound Reduction Built in Underlay	- 305mm x 610mm	Suitable for underfloor heating	Sound Reduction Built in Underlay	- 305mm x 610mm	Suitable for underfloor heating Sould Reduction Suit in Underfay
- PU	Easy push down locking system	Heavy contract rating	- PU	Heavy contract rating		- PU	Easy push down locking system Heavy contract rating
21dB R10	Rigid core	Fire resistant	20dB RIO	Fire resistant		22dB R10	Rigid core expansion and
Dry 62 (Low) Wet 50 (Low) Wear Group P			Dry 62 (Low) Wet 38 (Low) Wear Group P			Dry 62 (Low) Wet 38 (Low) Wear Group T	Fire resistant Suitable for all rooms
<0.1mm Pass			<0.1mm Pass			<0.1mm Pass	egr-st all rooms
>6 <0.25%			>6 <0.25%			>6 <0.15%	
<0.08mm / <0.10mm			<0.08mm / <0.10mm			<0.08mm / <0.10mm	
Pass Bfl-S1			Pass Bfl-S1			Pass Bfl-S1	
Class E1			Class E1			Class E1	
Growth Intensity 0			Growth Intensity 0			Growth Intensity 0	
100%			100%			100%	
A+			A+			A+	
Pass			Pass			Pass	
Suitable, Max 27°C			Suitable, Max 29°C			Suitable, Max 29°C	

FLOOR CARE & CLEANING

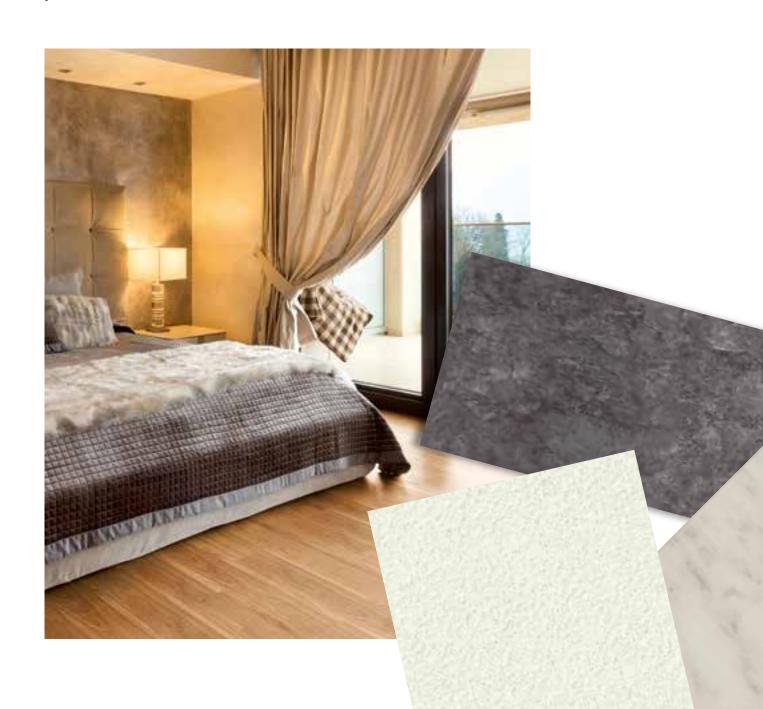
Luvanto LVT floors are extremely easy to clean and maintain. For the best results always use the Luvanto Luxury Cleaning Kit and follow the instructions for use on the back of the bottles.

Our useful tips will also help you to keep your Luvanto floor looking at its best.

We recommend that every 6 to 12 months that you give your floor some extra care by removing any built-up layers of old care products, wax or adhesive residues using Luvanto Strip.

IMPORTANT

Never use a steam cleaner to clean your Luvanto floor. This could cause delamination and void your warranty. Do not use abrasive or chemical detergents (like bleach) as this can damage the wear layer and significantly reduce the life of your floor.





COMPLEMENTARY PRODUCTS

QA UNIVERSAL & HIGH TEMPERATURE ADHESIVE

Designed and approved for the rapid and reliable installation of dryback Luvanto LVT flooring and acoustic underlays; fitter friendly with higher initial grab, faster drying and high strength when fully set. Pull-off tests have shown that the smoothing compound will fail before the adhesive.

QA Universal & High Temperature Adhesives are low-emission, solvent-free and odourless; and are suitable for underfloor heating, areas of high footfall and castor wheel traffic.



QA Universal Adhesive QAA-ADH-U1 - 6kg

QAA-ADH-U2 - 14kg



QA High Temperature Adhesive

QAA-ADH-H1 - 6kg QAA-ADH-H2 - 14kg

FASTFIT FLOOR LEVELLER

High quality MDF free-floating system for creating a smooth subfloor..

- Easy does it With a 3mm base and 4mm top board bound by a special interactive adhesive, FastFit lives up to its name it's quick, clean and easy to install compared with traditional screeds.
- Smooth, stable and simply warmer The system's designed to create a subfloor layer over underfloor heating systems for a perfect finish ready for the floor covering - with very low thermal resistance to really let heat through.
- Lightening the load The lightweight MDF material means FastFit's a breeze to lift and manoeuvre, so with its quick and easy installation you'll really save time and effort.
- QAU-FSF-01 (0.6m x 1.2m x 7mm)



QUICKTHERM UNDERLAY

Perforated PE foam underlay specially designed for underfloor heating and ideal for use under FastFit.

- The underfloor heating underlay -QuickTherm's unique perforated design and ultra-low tog value of just 0.35 means your underfloor heating system works more efficiently to keep you toasty!
- Lifelong supporter The very dense closed cell polyethylene material can take heavy loads long-term. fully supporting your floor to protect it and keep it in good shape for a longer life.
- Light fantastic It may be no lightweight in performance, but QuickTherm's certainly easy and safe to lift and handle thanks to its ultra-lightweight foam.
- QAU-QTH-01 (1m x 10m)



QUICKTHERM VAPOUR UNDERLAY

PE foam underlay for underfloor heating, with added moisture protection for use under FastFit.

- The heat is on QuickTherm Vapour features our unique perforated design and ultra-low tog value of just 0.303, so it helps your underfloor heating system work at its best to keep you lovely and warm!
- Dry as a bone It also has a built-in vapour barrier with overlap to stop moisture rising up from the sub-floor - protecting your floor covering and keeping your room damp-free.
- **Lightweight champion -** The lightweight closed cell polyethylene material makes it a breeze to lift and move around... saving time and effort during installation.
- QAU-QTH-02 (1m x 10m)



FINEFI OOR TECHNIBOARD

Only to be used under FastFit, FineFloor TechniBoard is a lightweight XPS panel used to eliminate uneven subfloors and improve insulation.

- On the level As well as insulation, TechniBoard is designed to provide a level subfloor for the floor covering, smoothing out the most uneven areas to offer stable support and help your floor last longer.
- Keep out the cold With exceptional thermal insulation
 2.15 TOG TechniBoard is perfect for use on ultra-cold subfloors; so in a cellar for example, it'll make your room feel so much cosier and usable.
- Easy to fit Made from modern polystyrene material, TechniBoard is easy to line up, cut and fit - saving you a great deal of time and effort wherever you're installing it
- QAU-FFT-01 (1200mm x 500mm x 5mm Panels)



SOUND BARRIER ACOUSTIC UNDERLAY

High performance acoustic underlay for glue down and click LVT installations. Ideal for use under FineFloor Techniboard.

- Quietly does it SoundBarrier provides an exceptional 24dB of impact sound reduction - higher than any other LVT underlay available. It also reduces walking noise by 31%, making the room a whole lot quieter.
- **Built to last** Made from a high-density polypropylene foam, SoundBarrier will easily last the lifetime of the floor, even under the heaviest foot traffic. It creates a stable base which supports the floor for life.
- Protects against damp The unique moisture-guard properties of SoundBarrier stop moisture getting through from the sub-floor, keeping the floor dry.
- QAU-SBR-01 (0.9m x 6.75m)

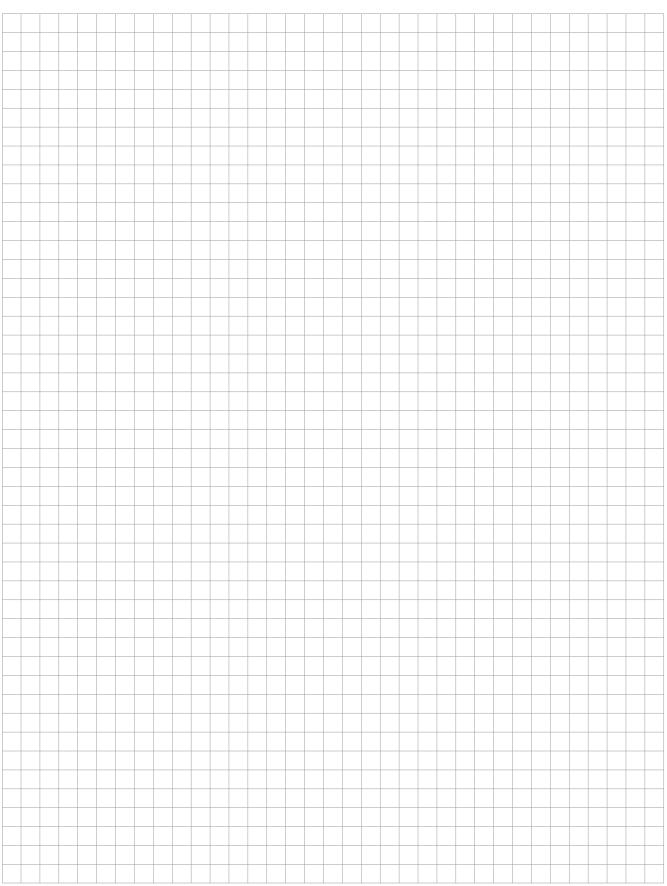


SOUNDCLICK UNDERLAY

Lightweight underlay for use with Luvanto Click flooring with anti-slip top surface.

- No slip-ups with the floor SoundClick has an anti-slip top surface, which holds the flooring firmly in place. It makes it so much easier to fit, without the pieces sliding around. And when the floor is down, you can guarantee it won't be going anywhere even if it takes the full force of family use!
- Quietly does it The dense, closed cell polyolefin foam of SoundClick gives it 18dB sound reduction so it deadens any loud noise and makes the whole room quieter.
- That warm feeling SoundClick has an ultra-low tog value of just 0.27, which means your underfloor heating system works much more efficiently, keeping your floor lovely and warm!
- QAU-SCL-01 (1m x 15m x 1.5mm)





All technical data provided in this publication is subject to variation.

It is partly based on data from laboratory tests in controlled environments and reflects the current level of industry expertise. It is not legally binding. Compliance with legal requirements remains the customer's own responsibility. Colour swatches are for representation only and actual colours may vary.

SPECIFICATION INFORMATION

			QA	Luvanto De Luxury Design Flo				
	Small Plank	Large Plank	Square Tile	Rectangle Tile	Contemporary Herringbone	Traditional Herringbone	Large Plank Herringbone	Plank
PACK SIZE	152mm x 914mm x 2.5mm	184mm x 1219mm x 2.5mm	305mm x 305mm x 2.5mm	305mm x 610mm x 2.5mm	107mm x 534mm x 2.5mm	76.2mm x 304.8mm x 2.5mm	152mm x 914mm x 2.5mm	180mm x 1220mm x 4mm
Pack Coverage	3.34m²	3.59m²	1.86m²	3.34m²	2.28m²	2.32m²	3.34m²	2.20m²
Pieces Per Pack	24	16	20	18	40	100	24	10
Bevelled Edge	Bevel	Bevel	Bevel	Bevel	Bevel	Bevel	Bevel	Micro-bevel
Arctic Maple	QAF-LVP-31	-	-	-	-	-	-	-
Lakeside Ash	QAF-LVP-30	-	-	-	-	-	-	-
White Oak	QAF-LVP-18	QAF-LVP-26	-	-	QAF-DES-10	-	QAF-LVP-18	QAF-LCP-01
Pearl Oak	QAF-LVP-34	-	-	-	QAF-DES-16	QAF-DES-06	QAF-LVP-34	-
Washed Grey Oak	QAF-LVP-11	-	-	-	QAF-DES-17	QAF-DES-05	QAF-LVP-11	-
Winter Oak	QAF-LVP-28	-	-	-	-	-	-	-
Bleached Larch	QAF-LVP-05	-	-	-	-	-	-	QAF-LCP-09
Natural Oak	QAF-LVP-01	QAF-LVP-21	-	-	QAF-DES-13	QAF-DES-02	QAF-LVP-01	-
Country Oak	QAF-LVP-12	QAF-LVP-23	-	-	QAF-DES-15	QAF-DES-01	QAF-LVP-12	-
Harvest Oak	QAF-LVP-02	-	-	-	-	-	-	-
Distressed Olive Wood	QAF-LVP-08	-	-	-	-	-	-	QAF-LCP-10
Reclaimed Oak	QAF-LVP-32	-	-	-	QAF-DES-09	-	QAF-LVP-32	-
Sun Bleached Spruce	QAF-LVP-19	-	-	-	-	-	-	QAF-LCP-14
Natural Sawn	QAF-LVP-15	-	-	-	-	-	-	QAF-LCP-12
Antique Oak	QAF-LVP-06	-	-	-	-	-	-	QAF-LCP-07
Harbour Oak	QAF-LVP-35	-	-	-	QAF-DES-08	-	QAF-LVP-35	QAF-LCP-21
Solid Maple	QAF-LVP-29	-	-	-	-	-	-	QAF-LCP-13
Vintage Grey Oak	QAF-LVP-10	-	-	-	-	-	-	QAF-LCP-03
Smoked Charcoal	QAF-LVP-33	-	-	-	QAF-DES-11	QAF-DES-07	QAF-LVP-33	-
Misty Elm	-	-	-	-	QAF-DES-12	-	-	-
Ebony	QAF-LVP-13	QAF-LVP-24	-	-	-	QAF-DES-04	QAF-LVP-13	QAF-LCP-04
Smokey Maple	-	-	-	-	-	-	-	-
Royal Chestnut	-	-	-	-	-	-	-	-
Black Ash	QAF-LVP-27	-	-	-	-	-	-	QAF-LCP-08
Priory Oak	-	-	_	-	QAF-DES-14	QAF-DES-03	-	-
White Porcelain	-	-	QAF-LVT-06	QAF-LVT-23	-	-	-	-
Warm Grey Stone	-	-	-	QAF-LVT-12	-	-	-	-
Silver Slate	-	-	-	QAF-LVT-13	-	-	-	-
Black Slate	-	-	QAF-LVT-02	QAF-LVT-22	-	-	-	-
Black Sparkle	-	-	QAF-LVT-16	-	_	-	-	-
Grey Sparkle	-	-	QAF-LVT-17	-	-	-	-	-
White Sparkle	-	-	QAF-LVT-18	-	-	-	-	-
Urban Grey	-	-	-	QAF-LVT-24	-	-	-	-
Weathered Concrete	-	-	-	QAF-LVT-25	-	-	-	-
New Concrete	-	-	-	QAF-LVT-26	-	-	-	-
Midnight Silver	-	-	-	QAF-LVT-27	-	-	-	-
Washed Concrete	-	-	-	-	-	-	-	-
New York Grey	-	-	-	-	-	-	-	-

Finishing Strip also available in White QAA-FSP-WH.

QA Luvant	to Click bign Flooring			nto Click+ Design Flooring	QA Luva	nto Pace Design Flooring	TAY.	DENDER ProDesign Flooring	Matching Finishing
Tile	Tile	Herringbone	Plank	Tile	Plank	Tile	Plank	Tile	Strip
305mm x 610mm x 4mm	149mm x 935mm x 4mm	149mm x 596mm x 4mm	180mm x 1220mm x 5mm	305mm x 610mm x 5mm	184mm x 1219mm x 4.0mm	305mm x 610mm x 4.0mm	181mm x 1220mm x 6mm	305mm x 610mm x 6mm	2700mm x 16mm x 6mm
2.22m ²	1.67m²	2.13m²	2.20m ²	2.22m ²	2.69m²	2.60m ²	2.21m ²	1.86m²	-
12	12	24	10	12	12	14	10	10	-
Micro-bevel	Micro-bevel	Micro-bevel	Micro-bevel	Micro-bevel	Micro-bevel	Micro-bevel	Micro-bevel	Micro-bevel	-
-	-	-	QAF-LKP-06	-	-	-	-	-	QAA-FSP-08
-	-	-	QAF-LKP-05	-	-	-	QAF-LRP-02	-	QAA-FSP-13
-	-	-	QAF-LKP-12	-	-	-	QAF-LRP-07	-	QAA-FSP-01
-	-	QAF-LCH-01	QAF-LKP-08	-	-	-	-	-	QAA-FSP-16
-	-	QAF-LCH-02	QAF-LKP-01	-	QAF-LPP-01	-	QAF-LRP-06	-	QAA-FSP-02
-	-	-	QAF-LKP-04	-	-	-	QAF-LRP-09	-	QAA-FSP-21
-	-	-	QAF-LKP-18	-	-	-	-	-	QAA-FSP-10
-	-	QAF-LCH-03	QAF-LKP-03	-	-	-	QAF-LRP-03	-	QAA-FSP-14
-	-	QAF-LCH-04	QAF-LKP-02	-	-	-	QAF-LRP-01	-	QAA-FSP-05
-	-	-	QAF-LKP-14	-	-	-	-	-	QAA-FSP-06
-	-	-	QAF-LKP-15	-	-	-	-	-	QAA-FSP-11
-	-	-	QAF-LKP-09	-	-	-	QAF-LRP-04	-	QAA-FSP-17
-	-	-	QAF-LKP-10	-	-	-	-	-	QAA-FSP-20
-	-	-	-	-	-	-	-	-	QAA-FSP-15
-	-	-	-	-	-	-	-	-	QAA-FSP-07
-	-	-	QAF-LKP-16	-	-	-	-	-	QAA-FSP-12
-	-	-	-	-	-	-	-	-	QAA-FSP-19
-	-	-	QAF-LKP-11	-	-	-	QAF-LRP-05	-	QAA-FSP-03
-	-	QAF-LCH-07	QAF-LKP-07	-	-	-	QAF-LRP-08	-	QAA-FSP-18
-	-	-	-	-	QAF-LPP-04	-	-	-	-
-	-	QAF-LCH-05	QAF-LKP-17	-		-	-	-	QAA-FSP-04
-	-	-	-	-	QAF-LPP-02	-	-	-	-
-	-	-	-	-	QAF-LPP-03	-	-	-	-
-	-	-	QAF-LKP-13	-	-	-	-	-	QAA-FSP-09
_	-	QAF-LCH-06	-	-	-	-	-	-	-
QAF-LCT-07	-	-	-	-	-	-	-	-	QAA-FST-06
QAF-LCT-06	-	-	-	QAF-LKT-05	-	-	-	QAF-LRT-03	QAA-FST-05
_	-	-	-	QAF-LKT-01	-	-	-	QAF-LRT-02	QAA-FST-04
QAF-LCT-02	-	-	-	QAF-LKT-03	-	-	-	QAF-LRT-01	QAA-FST-02
-	QAF-LCT-08	-	-	-	-	-	-	-	-
-	QAF-LCT-09	-	-	-	-	-	-	-	-
-	QAF-LCT-10	-	-	-	-	-	-	-	-
-	-	-	-	QAF-LKT-02	-	-	-		QAA-FST-07
QAF-LCT-12	-	-	-	QAF-LKT-07	-	-	-	-	QAA-FST-08
-	-	-	-	QAF-LKT-04	-	-	-	-	QAA-FST-09
QAF-LCT-14	-	-	-	-	-	-	-	-	QAA-FST-10
-	-	-	-	-	-	QAF-LPT-01	-	-	-
-	-	-	-	-	-	QAF-LPT-02	-	-	-

