# EXPONA

# CONTROL

LUXURY VINYL TILES WITH
SUSTAINABLE WET SLIP RESISTANCE



# EXPONA CONTROL

Welcome to the world of Expona Control - a floorcovering of which you will not have experienced before - one of pure innovation and clear understanding of the commercial industry. Polyflor have taken the great opportunity of fusing high-design aesthetics with sustainable performance, by marrying two key areas; luxury vinyl tiles (LVT) & safety flooring, into one exceptional product.

With a combined history of over 50 years of expertise and creativity in the manufacturing of these product types, we continuously learn from our own experiences and that of our customers, to be able to introduce a brand new flooring concept.

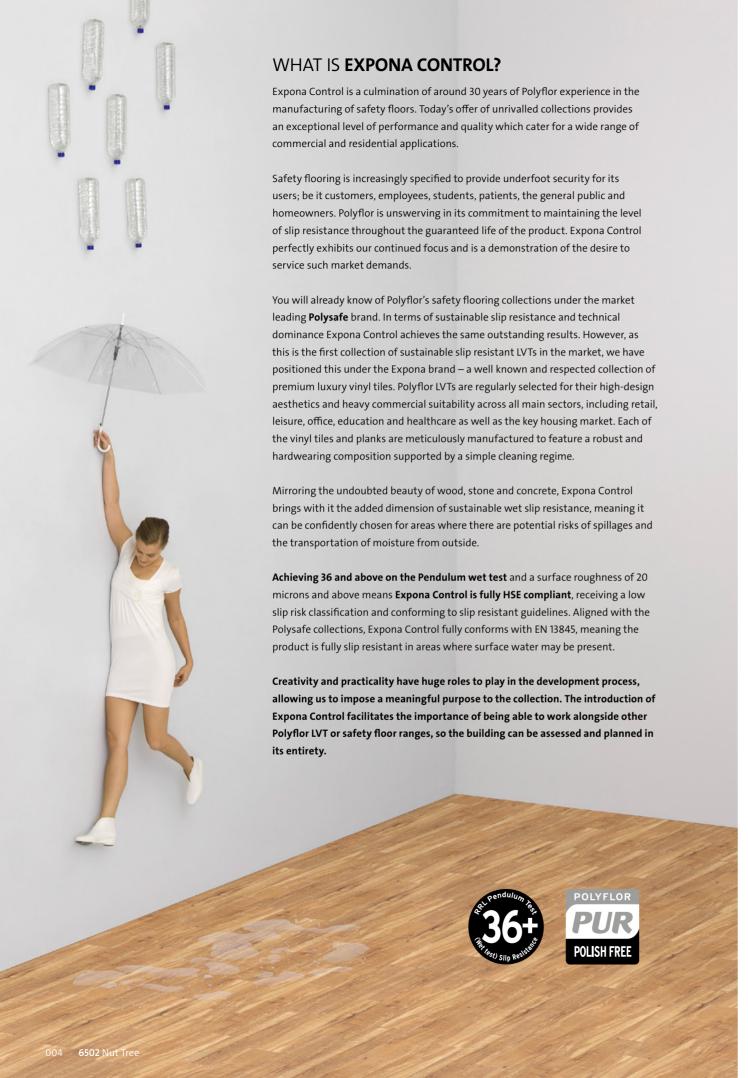
Design is critical to all commercial interiors and with that comes a responsibility to its users.

This shared commitment allows us to offer beautiful and authentic replications of natural materials with the added benefit of underfoot safety and security, resulting in a more assured confidence.

Expona Control features unobtrusive aluminium oxide particles throughout the wear layer to create a uniquely honest decoration that ensures sustainable wet slip resistance in heavy commercial areas, in full compliance with HSE Guidelines.

manufacture and most importantly confirm how and where it can be used to stunning creative effect.

002 **7504** Warm Grey Concrete



#### SAFFTY FLOORING YOU CAN TRUST

Put simply, slip resistance is achieved by increasing the friction between the foot and the floor. This traction increase is due to the inclusion of aggregate within the composition of Expona Control. These particles are not simply sprinkled onto the top as a coating that will wear off after a short time in use. Instead, aggregates are incorporated within the wear layer of each tile and plank to ensure sustainable slip performance. This enhanced wear layer creates a rougher, harder friction surface to 'bite' into the sole of the footwear, to create the necessary durability and underfoot safety. The slip resistant properties are further brought to life in areas where moisture is trafficked from outside, such as retail stores which lead directly onto the high street. This is a crucial demand for many buildings, across all sectors, meaning Expona Control reduces the risk of slip unlike other floor finishes which may prohibit their specification and use.

## Don't be fooled by others

Once Expona Control is installed and maintained correctly, the slip resistance will tend to improve with age. Over time, as the top layer wears, aggregate will be retained and new will be revealed, to continue the job of imparting the required performance, gaining value for years to come.

Conversely, products being sold as 'safety floors' which have very thin coatings of aggregate applied or feature a slightly rougher surface emboss may pass an ex-factory ramp test but only offer short term slip resistance which will reduce after installation and wear.

Commercial safety floors offering sustainable wet slip resistance must meet the European Safety Flooring Standard of EN 13845, with the 50,000 cycles abrasion test as well as achieving 36 and above on the pendulum wet test.

Expona Control reframes this practice as something more than just commerce, showing a diligence in construction to ensure these key criteria are met.

## Where can Expona Control be used?

Expona Control is developed for use in public areas where there is a risk of spillage or temporary surface water that could make the floor unsafe without the necessary friction. These include:

 Buildings with direct access to outside; areas open to rainwater which can be trafficked inside, by feet, luggage, pushchairs, wheelchairs etc. This is a common issue within the retail, leisure, office, education and healthcare sectors.

Other areas include:

- Bar & restaurant servery and dining areas
- Hair salor
- Office kitchens and refreshment areas
- Healthcare break out facilities
- Education canteens
- Supermarkets, convenience and general stores
- Public bathrooms

For further clarification on where the product can be used, contact Polyflor.

It is worth noting that Expona Control needn't necessarily be installed throughout a building, but can be specified for particular areas of potential risk. A good example is a multidepartmental store where Expona Control is selected for main entrance points plus areas such as drink serveries, food halls and public bathrooms; where liquids may be present. Standard Polyflor luxury vinyl tiles can then be specified for low risk 'dry slip' areas, to ensure the continuity of the interior and floor design scheme.

For areas with constant surface water such as wet-rooms and interior pool-side locations, see the Polysafe Hydro products.



#### Form vs Function

Expona Control's prime function is to offer sustainable slip resistance with a palette of authentic & natural designs. The relationship between form and purpose – design and safety – is symbiotic. We recognise the importance of both areas, blending them to help solve a problem.

Previous experience in use is a strong selection criteria and one of the Health & Safety Executive's own recommendations. On this basis and with the history of millions of square metres of Polyflor safety flooring installed, Expona Control works towards this goal with intelligence, innovation and integrity.

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# WOOD

A marker of good design is whether it relates to and interacts with its surroundings. Expona Control helps maximise the opportunities of each installation, allowing authenticity and practicality to permeate through the range.

The wood collection presents a tailored offer of natural timber designs, emulating the form whilst enhancing the functionality. Covering popular and well specified wood effects, Expona Control features variations in grain and high clarity decorations across a mix of wood species.



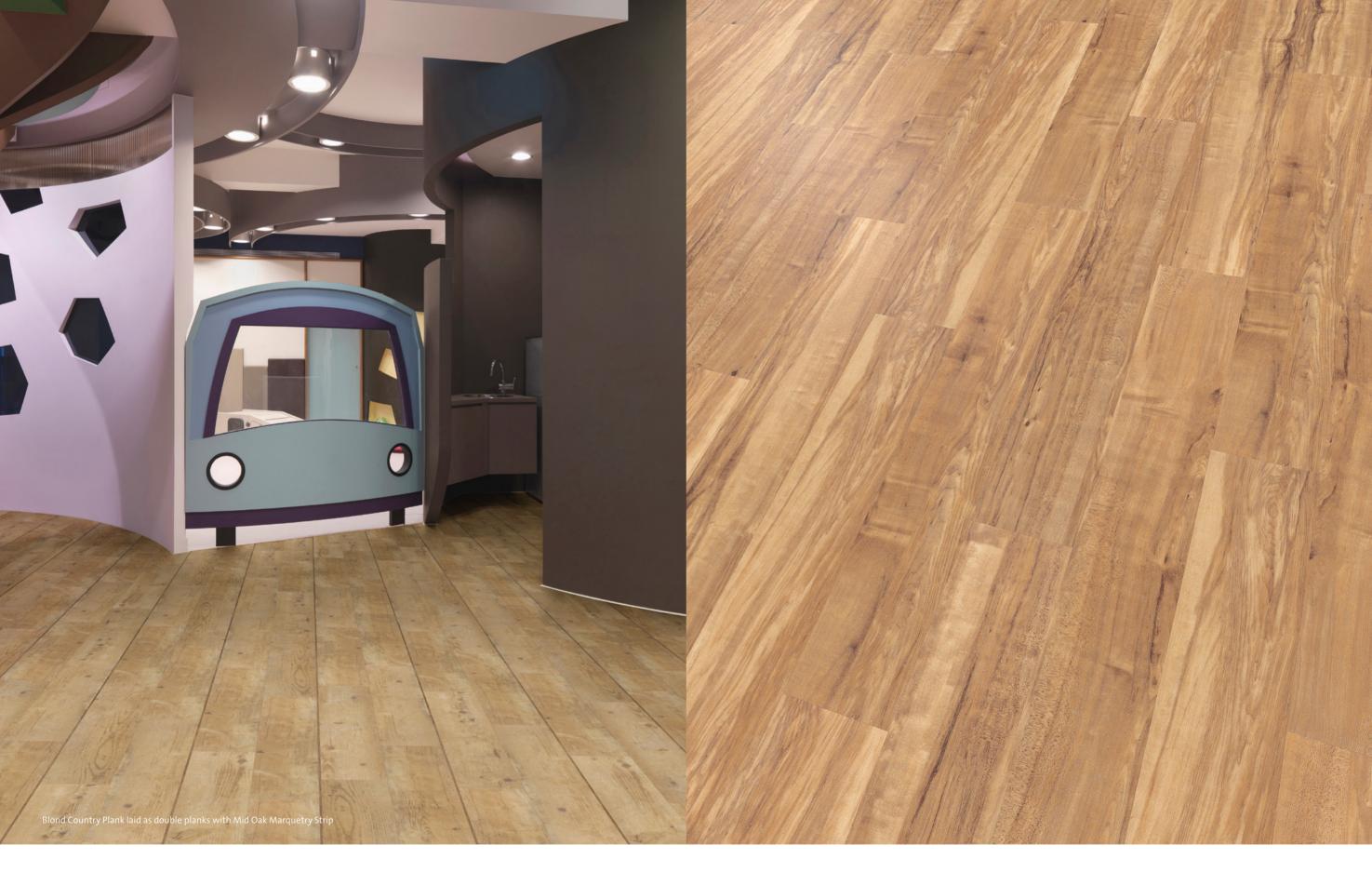


Magnified area of product to show an almost invisible slip resistance

# WHITE OAK

6505 | 152.4 x 914.4mm

Traditionally less porous than the red oak species, White Oak incorporates a tighter grain which is clearly demonstrated here. With an almost invisible slip resistant aggregate incorporated throughout the performance layer, the colour allows light to bounce around a room, to offer a feeling of space.



# **BLOND COUNTRY PLANK**

6501 | 152.4 x 914.4mm

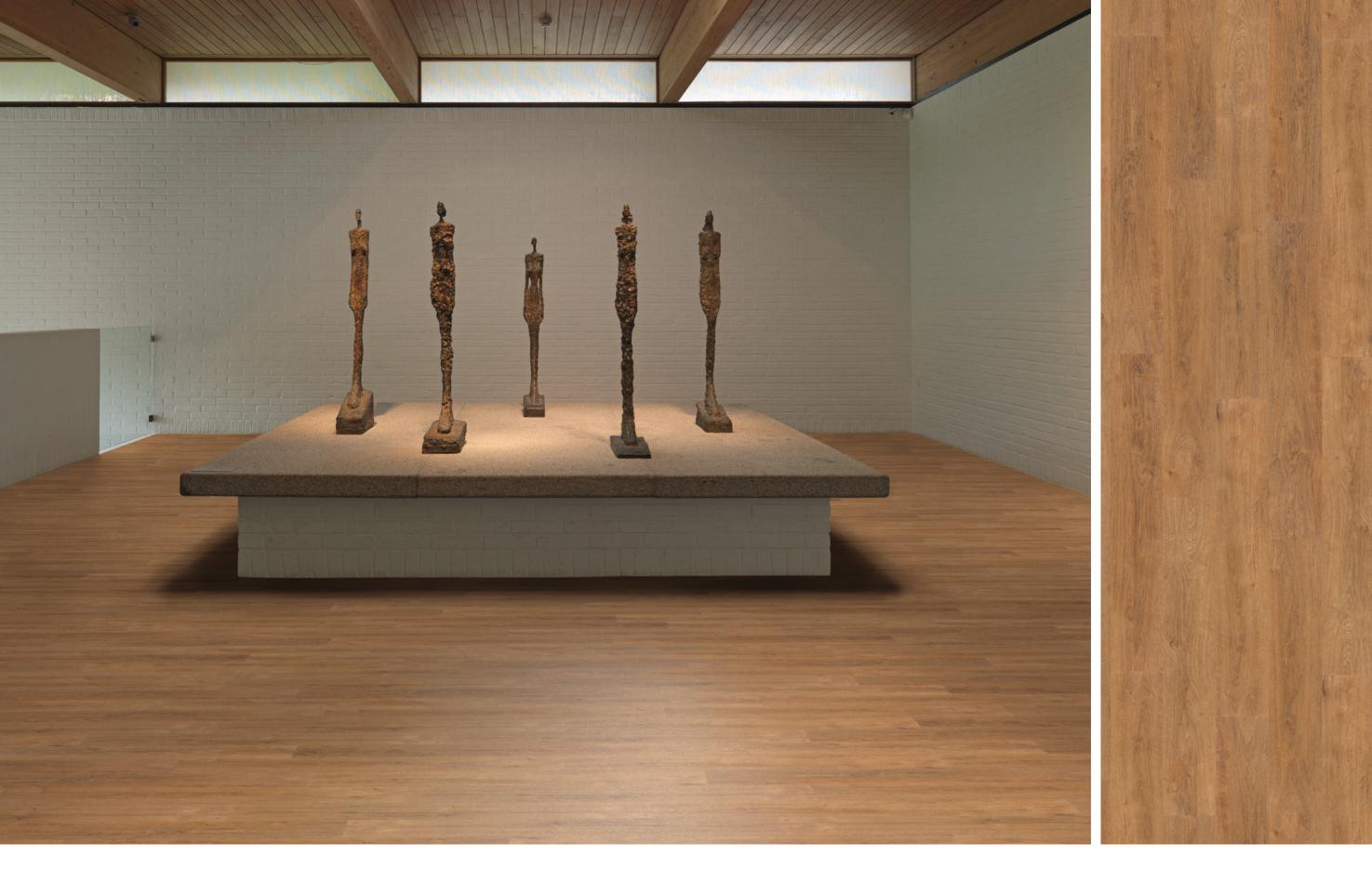
Reminiscent of reclaimed timber and washed up driftwood, Blond Country Plank is a responsive call for energetic safety flooring. The design features more exaggerated knots and markings in an exciting sun-bleached mix of tones.

# **NUT TREE**

6502 | 152.4 x 914.4mm

Nut Tree presents an exciting and active timber decoration, intended to add an extra vitality to commercial interiors. Featuring a strong grain, due to the large open pores of the natural material, the forced contrast works without disturbing its integrity.





# CLASSIC OAK

6503 | 152.4 x 914.4mm

Demonstrating a more deepened and enriched honey colour to that of American Oak, this Classic variety provides an opportunity to create stunning interiors aligned to today's requirements, whilst removing the line between the adjacent systems of safety and design.





# LIGHT ELM

6506 | 152.4 x 914.4mm

Light Elm is a creative response to existing and emerging demands for cool and clean grey tones. Another main feature is the lively figured grain which is reminiscent of quartersawn timber, representing the sophisticated modernity of Expona Control.

# WEATHERED COUNTRY PLANK

6504 | 152.4 x 914.4mm

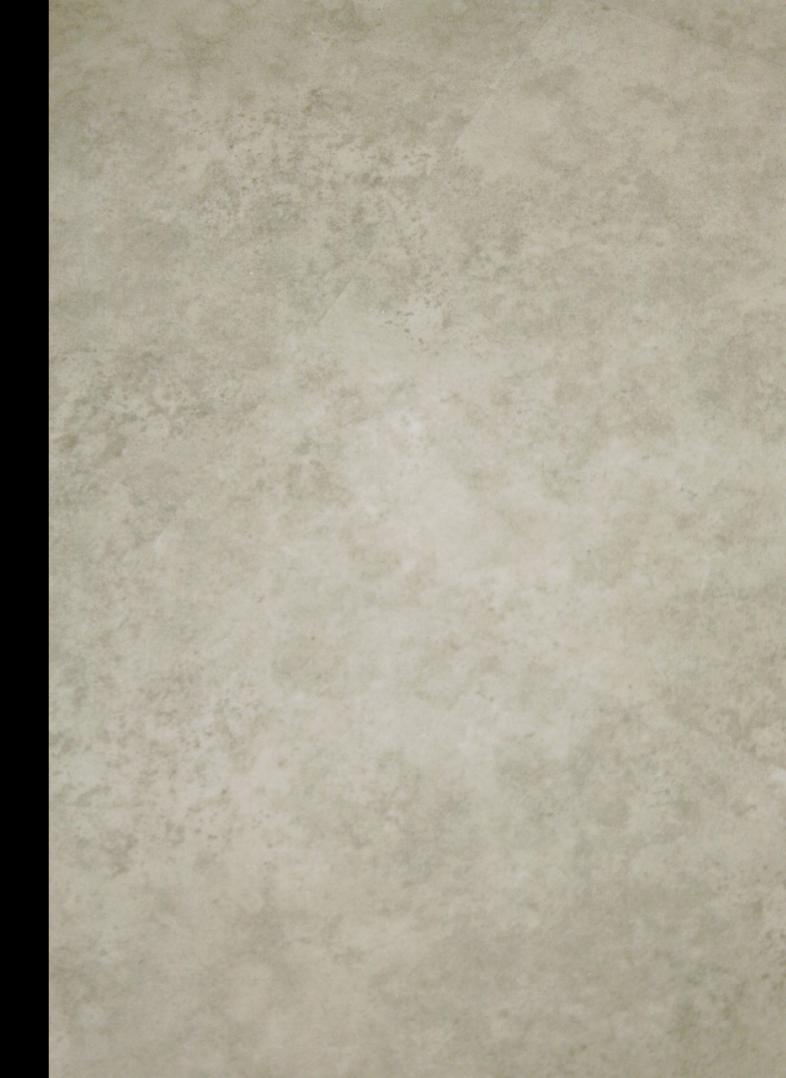
Detatching itself from the workshop floor, Weathered Country Plank portrays an aged history with an emphasised grain and heavily spalted markings. The almost wormed veneer lends a certain depth to the depiction whilst further adding to the increasingly diverse product pool.

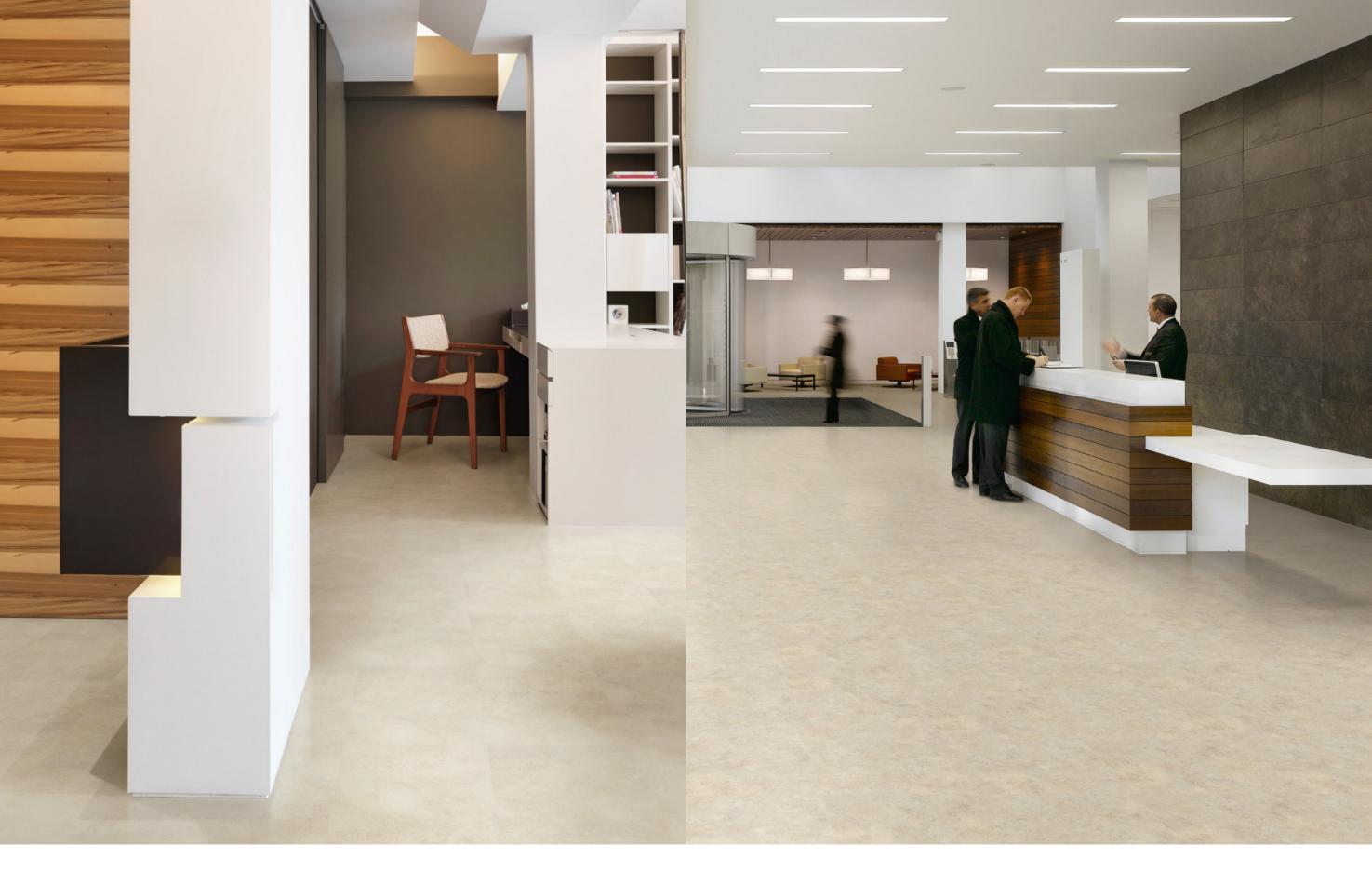
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# STONE

As designer Paul Rand once stated "Design is the method of putting form and content together". Polyflor have given in to the irresistible desire to produce a collection of natural stone effects which bring an elegant symmetry to Expona Control. Meeting current requirements and anticipating future design and safety demands, the range of commercially relevant stone and concrete tiles portray the simple sophistication of design and quality of material.





# **PORTLAND STONE**

7500 | 457.2 x 457.2mm

Portland Stone represents the essence of a clean and uncluttered mineral. The moderate quantity of fossils found in the natural material are evenly and subtly distributed resulting in an intentionally demonstrated floor design.

# **CLASSIC LIMESTONE**

7501 | 457.2 x 457.2mm

Classic Limestone is a product of all our histories. Given the reputation as a global building stone, it is often utilised in exterior architectural applications and features a fine to medium grain which exhibits delicately warming tones.



# **CLASSIC YORKSTONE**

7502 | 457.2 x 457.2mm

Imposing a stronger structure to that of limestone, Classic Yorkstone gives an honest account of an active material. The characteristic energy implies a swirling vein presented in a golden tone, which can help lift an interior scheme.

# **CAMBRIAN STONE**

7507 | 304.8 x 609.6mm

Interlocking a mix of complementary brown through to cream tones, Cambrian Stone features golden highlight flakes which picks up and interacts with the surrounding light. Replicating the complex nature of fossilised limestone, the brick formatted tile displays a medium to coarse grain and widely varying fossil intensity.

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# **SMOKED LIMESTONE**

7503 | 457.2 x 457.2mm

The success of Smoked Limestone lies with the overall hue and subtle variation in markings which accurately depicts what quarriers of this type of material will naturally find. Inspired by ongoing calls for commercially relevant floorcoverings, Smoked Limestone presents a clear minded vision of a contemporary stone tile design.

# WARM GREY CONCRETE

7504 | 457.2 x 457.2mm

Warm Grey Concrete contains a direct reference to this man-made material, which is manufactured to create a pleasing, flat finish, exposing a fine decoration. The integrated features contribute to help make the contemporary and industrialised design form each interior space.



# **ROMAN LIMESTONE**

7506 | 304.8 x 609.6mm

There is an element of Roman Limestone, which of its own accord, is entirely separate from that of its inspiration. Submitting a lively character and strong demarcation in grey to cream tones, the design casts a nostalgic shadow from historic architectural materials.

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# THE COLLECTION

The requirements of a commercial interior shifts depending on its use, therefore the functionality of products utilised should cover these needs to ensure design and performance are covered. The Expona Control collection not only caters for such rigorous demands but the creative and contemporary nature of the palette leaves a lasting impression.

One of the main purposes of the range is to enable the specifier to look at the space around them and to confidently identify the key requirement of safety for its users, to help begin to plan and respond accordingly.

Expona Control is supported with a robust functionality to encourage a continued focus on its intended use.



# WOOD COLLECTION

**6" x 36"** 152.4 x 914.4mm





6500 American Oak



6501 Blond Country Plank



6502 Nut Tree



6503 Classic Oak



6505 White Oak



6506 Light Elm



6504 Weathered Country Plank

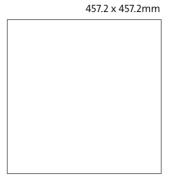
Accurate authenticity is at the heart of Expona Control, representing the allure, distinction and unpredictability of natural timber. To replicate these materials, the products may contain knots and markings as part of their design.

A blend of clear, white and brown aluminium oxide particles are incorporated in the performance layer to achieve the sustainable slip resistance which may be visible when inspected at close range but will be almost invisible when installed and viewed at general scale.

Although we endeavour to ensure the brochure print process represents the true colour of each product, we recommend you view an actual sample which we shall be pleased to supply, free of charge. Visit polyflor.com and follow the samples link for further details.

# STONE COLLECTION

18" x 18"







7500 Portland Stone





7502 Classic Yorkstone

7503 Smoked Limestone

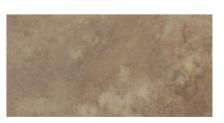
**7504** Warm Grey Concrete

**12" x 24"** 304.8 x 609.6mm





7506 Roman Limestone



**7507** Cambrian Stone

Expona Control reflects the undoubted beauty of stone and concrete with a sophisticated and tailored collection of tiles. The detailing and natural intricacies of minerals are sympathetically represented to ensure authenticity, therefore the products may contain variation in markings as part of their design.

As with the wood products, the subtle and essential colour blend of aluminium oxide particles will be present in each tile.

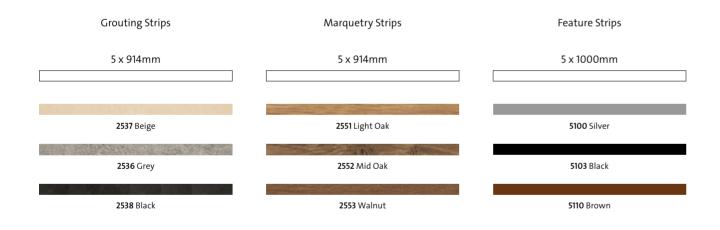
# INLAY STRIPS & DESIGN FLOORS

As pioneers in the development of luxury vinyl tiles and safety floors, we understand the criteria of form and functionality.

An additional key benefit of Expona Control is the option of creating bespoke floor designs, tailored to your own vision or corporate style.

Offering a more figurative approach to that of traditional safety flooring, inlay strips can be utilised to create a more intricate shape or to accentuate a feature area. Tiles and planks from the wood and stone collections can also be installed side by side to delineate rooms, create zonal areas or used simply as a more imaginative detail.

The possible combinations and floor design options promotes Expona Control as a more expandable safety flooring system, and is an opportunity to create a personalised floor base for a wide array of commercial interiors. Using the structure and affordances of the tiles, planks and inlay strips, one can enter into a more creative concept to form a truly bespoke floor installation, whilst retaining the safety aspect at all times.



**Note:** The inlay strips do not include aluminium oxide particles in their structure, but their use will not compromise the safety of the overall floor.



Unlike standard Polyflor luxury vinyl tile collections, we recommend that bespoke waterjet cutting and intricate curved shapes are not utilised with Expona Control. It is crucial that the sustainable slip resistance is maintained at all times and the inclusion of such shapes may cause unconventional joins which could lead to unnecessary risks. Also, as the slip resistant aggregate is incorporated in the wear layer, freshly cut edges of products laid together may lead to unsquare edges and subsequent gaps.

To discuss specific design floor options or for clarification of what can be achieved, contact Polyflor.

TECHNICAL DATA

## MAINTENANCE

| Characteristics  | Standards  | Unit   | EXPONA CONTROL  |
|--|--|--------|---|
| Type of floorcovering  | EN 649 / EN ISO 10582  |        | Heterogeneous, PVC  |
| Surface treatment  |  |        | PUR   |
| Total weight   | EN 430 / EN ISO 23997  | g/m²   | 4290  |
| Performance classification   | EN 685 / EN ISO 10874  |        | 23, 34, 43  |
| Gauge  | EN 428 / EN ISO 24346  | mm     | 2.5   |
| Wear layer thickness   | EN 429 / EN ISO 24340  | mm     | 0.7   |
| Packaging and plank size   | EN 427 / EN ISO 24342  | mm     | 24 @ 152.4 x 914.4 = 3.34 m <sup>2</sup>  |
| Packaging tile size  | EN 427 / EN ISO 24342  | mm     | 18 @ 304.8 x 609.6 = 3.34 m <sup>2</sup><br>16 @ 457.2 x 457.2 = 3.34 m <sup>2</sup>                      |
| Dimensional stability  | EN 434 / EN ISO 23999  | %      | < 0.1   |
| Residual indentation   | EN 433 / EN ISO 24343-1  | mm     | 0.05**  |
| Colour fastness to artificial light  | EN ISO 105-B02   | level  | ≥6  |
| Behaviour to fire  | EN 13501-1   |        | Bfl - s1  |
| Slip resistance<br>Expona Control's slip resistance is assured<br>throughout the guaranteed life of the product,<br>with strict adherance to HSE guidelines. | Sustainable wet slip resistance* EN 13845 EN 13893 RRL Pendulum Test Surface Roughness DIN 51130 AS 4586 |        | Class ESf (enhanced slip)* Class DS (dry condition) ≥36 (wet test - 4S Rubber/Slider 96) Rz ≥20µm R10 R10 |
| Impact Sound Reduction   | EN ISO 10140-3   | dB     | 2   |
| Resistance to thermal conductivity   | EN 12667<br>ISO 8302   | m² k/w | 0.25  |
| Assessment of static electrical propensity   | EN 1815  | kV     | <2  |
| Chemical resistance  | EN 423 / EN ISO 26987  |        |   |
| Abrasion resistance  | EN 13845<br>EN 649<br>EN ISO 10582   |        | 50,000 cycles<br>Group T<br>Type I  |
| Castor chair suitability   | EN 425 / ISO 4918  |        | Suitable  |
| Underfloor heating suitability   |  |        | Suitable max. 27 °C   |
| VOC emissions  | Indoor Air Comfort Gold<br>AgBB<br>FloorScore<br>Finnish M1 Classification                               |        | Eurofins certified product<br>Very low emissions<br>Certified Product<br>Pass                             |

 $^* \quad \text{Expona Control slip resistance is assured throughout the guaranteed life of the product, with strict adherence to HSE guidelines.} \\$ 

\*\* Averaged test value from current production.

\*\*\* Resistant depending on concentration and time of exposure, in case of increased impact of oils, grease, acids, alkalis and other aggressive chemicals please contact us.

Unique innovation and exceptional quality form the basis of Expona Control, resulting in a range of extensively researched products which combines high-clarity printed decoration and guaranteed performance.

Consisting of thermally pressed heterogeneous layers, Expona Control is enhanced with PUR, an exclusive and robust polyurethane reinforcement which provides superior cleaning benefits and easier soil release. This technology is amalgamated within each tile and plank using a specially cross-linked and UV cured process that ensures optimum levels are achieved.

A clean floor is a safer floor and the incorporation of PUR provides an easier regime for maintenance staff and a reduced need for energy, power, water and chemical consumption.

Considering the beauty of the faithfully represented natural materials, this cleaning technology is a significant factor to ensure the key aesthetics are retained, without detriment to the sustainable slip resistance.

As with general commercial flooring, it is important to adopt a life-cycle approach when selecting the floor. The considered investment of Expona Control can be more than offset by the maintenance cost savings achievable over the life of the floor. The collection offers a significant life-cycle maintenance saving of up to 60% when compared to non-reinforced products over a 15 year period.

It is important to note that as per all Polyflor safety flooring collections, a polish should not be applied as this will impair the slip resistance.

Produced to be fully fit for purpose, Polyflor's commitment to suitability and practicality will transfer from us, the manufacturer, through the specifier, to the end user.

For detailed maintenance instructions visit the Expona Control product page at polyflor.com or contact Polyflor Customer Technical Services.













UK Patent No. 2499289 European Patent No. 2785929 Australian Patent No. 2012343584







## SLIP RESISTANCE

Slip resistance can be a confusing area for specifier and client alike. On one hand there is a requirement to specify flooring that is safe and fit for use, against a background of increasing awareness and litigation in the case of slips and trips. On the other hand, there is a plethora of test methods to assess the security of floors, various manufacturer claims and competing product to complicate choice. Add in colour choice, decoration and maintenance and the confusion can multiply.

Polyflor would always give the same two key points of advice before slip resistant flooring is specified.

- 1. Use a reputable manufacturer that can demonstrate previous experience in areas you are working on.
- 2. Ask for advice the team at Polyflor have more experience in this area than any one individual could acquire. The Customer Technical Support Team is on hand to dispense free advice please use them.

#### Slip resistance test methods

Polyflor test against a variety of international test methods for slip resistance and the results are published for all to see. The test methods explained here are the most relevant and commonly used to make precision assessment of floor safety.

#### Pendulum Test

This test method is recommended and preferred by the HSE to assess the dynamic coefficient of friction of a floorcovering, achieved by swinging a dummy heel over the floor surface (see the below image) to simulate a foot slipping on a wet floor. A standardised rubber sample is used to represent a standard shoe sole of average slip resistance. Widely used, the greatest strength of this test is that it can easily be used in-situ, so the slip resistance of the floor can be assessed over its whole life. Results are quoted using a Four S (Slider 96) rubber slider. Whilst floor surfaces can be tested in the wet or dry, the results indicated always quote the wet result as this is the condition in which slipping is likely to occur. Be wary of very high dry results quoted in isolation. HSE Guidelines call for a floor to give a Pendulum test value of 36 and above in the wet to be classified as a low slip potential.

Expona Control achieves a Pendulum reading in the wet of 36+ which lies within the low slip risk category and this slip resistance is assured for the guaranteed life of the product.

#### **Surface Roughness**

This test can be used in conjunction with the Pendulum test and involves measuring the total surface microroughness of the flooring with a surface roughness meter. It is useful in locations where it might be impractical to set up the pendulum e.g. stairs or confined spaces. A mean value of several peak to valley measurements is electronically calculated on the surface by tracing a needle over the floor at various points. This measure is felt to be a good predictor of slip performance. Expona Control, as with all Polyflor safety products exceed Rz 20µm, and in

accordance with HSE Guidelines is classed as a product with low slip potential in water-wet pedestrian areas. The surface roughness the floor requires is governed by the viscosity level of liquid contaminants in the application area.

#### The Ramp Test (DIN 51130 & AS 4586)

This test involves a person in shod foot walking on an inclined ramp, in the presence of an oil contaminant. The resulting level of degrees the ramp can be inclined before the operator slips is categorised into appropriate 'R' values - running from R9 up to R13. This test has been commonly used in Europe, especially in the hard flooring sector. Whilst Polyflor quotes results of this test to AS 4586, it is believed that the Ramp test can be used to mislead. Firstly, a common misconception is that the R scale runs from R1 to R13 with R1 being the most slippery. In fact, an R9 rated product is classified as the floor with the least slip resistance. This allows manufacturers to imply R9 products are sold as specialist, slip resistant surfaces. Furthermore, this test is carried out ex-factory and is not practical to replicate on-site, so gives no reliable measure of performance and wear over the life of the floor, as is possible with the Pendulum and surface roughness tests. For instance, a factory applied thin coating or heavy emboss could be applied to pass the Ramp test but the resistance will usually change significantly on installation and would wear off in use after maintenance regimes have been applied.

## The HSE Slips Assessment Tool (SAT)

This is a computer software programme developed by the HSE which, in conjunction with a hand-held surface microroughness meter, can be used in-situ to risk assess the slip potential presented by pedestrian walkway surfaces. The software operator feeds in information on-site such as: the surface roughness readings, amount and causes of floor surface contamination, footwear used and the cleaning regime implemented in order to gain a slip risk classification for the floor. These factors are taken into account along with others detailed in the slip potential model. This simple software programme can be downloaded free of charge, from www.hse.gov.uk/slips.

#### EN 13845

This European Standard specifically relates to particle based safety flooring. Whilst this standard covers all aspects of product quality, it also brings in another measure of slip resistance:

ESF – all Polyflor safety floor products achieve a rating of Enhanced Slip for use with footwear, as opposed to DS, (meaning Dry Slip) as stated in the EN 13893 standard.

### **RIBA Approved CPD**

A RIBA Approved CPD Seminar is available to be presented by a Polyflor representative covering the afore-mentioned slip resistance test methods and to assist in the specification of safety floorcoverings. Contact Polyflor for further information.

#### CE Marking

All flooring sold in Europe must carry the CE mark and show results on mandatory performance aspects – fire and slip.

The vast majority of smooth vinyl floors will carry a Dry Slip rating – this essentially means that the flooring is safe for use. For slip resistant flooring, you should look for an ES rating.

#### Points to consider:

- HSE recommends the Pendulum test in conjunction with surface microroughness meter for real life in-situ results.
- All Polyflor safety collections adhere to HSE Guidelines, achieving 36+ in the Pendulum wet test with a surface roughness of Rz ≥20μm.
- The slip resistance is assured for the guaranteed life of the product.
- RIBA Approved CPD seminar for the specification of safety vinyl floorcoverings is available directly from Polyflor representatives.

As with all Polyflor safety floor collections, Expona Control is subjected to the rigours of internal testing on the production line and in our laboratories to ensure they are fit to serve their

purpose as sustainable safety floors. These actions are fully backed up by external testing carried out by independent bodies to meet relevant industry standards.

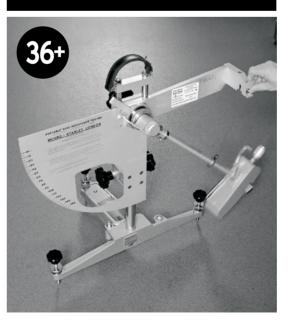
Expona Control retains its aesthetic and performance characteristics to demonstrate outstanding durability and abrasion resistance, adhering to the guidelines detailed in EN 13845. It is crucially stated that the floor should suffer no ill effects when tested for abrasion over 50,000 cycles, as in EN 660-2, where a stringent testing procedure is applied involving constant cycles of abrasion under pressure with the continuous application of grit.

#### **Stain Resistance**

As Expona Control is an ideal selection for many interiors across the main commercial sectors, resistance to everyday dirt and staining will be an important consideration. Areas such as retail and leisure units where dirt and moisture is trafficked directly from outside, plus servery, dining and break out points where spillages may occur, mean an easy maintenance floor, which does not inhibit the safety aspects, is a crucial requirement. Maintenance and chemical resistance documents are readily available online or from Polyflor Customer Technical Services, should they be required.

Expona Control not only represents the true distinction of natural materials but also offers guaranteed and sustainable wet slip resistance, possessing an aspect that further reveals itself through its continuous use.

#### **RRL Pendulum Co-Efficient of Friction Test**



#### Ramp Test (DIN 51130)



## HERE TO HELP

#### **ENVIRONMENT**

Polyflor have for many decades been recognised as a leading global manufacturer of high quality, high performance floor coverings. We have demonstrated a high level of commitment and endeavour to minimise the impact our products have on the environment without compromising their performance benefits.

There can be few materials better suited to recycling than vinyl flooring. Expona Control is 100% recyclable, and can be recycled many times without loosing any of its performance properties.

All our Expona flooring has the prescribed CE mark, as a European declaration of performance and is regularly tested to ensure the exceptional standards are continually met. In specific global markets Expona meets stringent technical requirements. If further information is required, contact Polyflor Customer Technical Services.

Expona Control has achieved the Indoor Air Comfort Gold rating. This certificate, issued by Eurofins, is awarded to products with VOC emissions below any globally determined VOC limits.

#### WEBSITE

To view details online for the Expona Control range, visit polyflor.com and follow the links to the Expona Control product page. Here you will find product details, additional technical data and the option to view installations.

#### **SAMPLES**

When making your colour selection, we recommend you view an original sample which we will be happy to supply.

To request individual product samples of any design within the Expona Control collection, visit polyflor.com. Alternatively, call the dedicated Polyflor Samples Hotline on +44 (0)161 767 2551.

#### CONTACT US

For general information on your specific project, either speak with your local Polyflor provider or contact us directly. If you require additional detailed technical data, either visit polyflor.com, following links to the technical pages or contact Polyflor Customer Technical Services on +44 (0)161 767 1912 or email tech@polyflor.com

For details of international Expona availability see opposite for global contacts or visit polyflor.com and follow the Contact Us link.

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