

**POLYSAFE. THE COMPLETE SAFETY FLOORING SOLUTION**



THE QUEEN'S AWARDS  
FOR ENTERPRISE:  
INNOVATION  
2007





**4 STEPS TO SAFETY**

- 1**  
36+ RRL  
Pendulum Wet Test
- 2**  
Surface Roughness  
 $R_z \geq 20\mu\text{m}$
- 3**  
Proven Cleanability
- 4**  
Sustainable Slip  
Resistance

**HSE COMPLIANT**



# POLYSAFE



Polysafe safety flooring has been manufactured by Polyflor for over 25 years and today the collection offers an array of products for all possible applications with a level of performance and quality second to none.

Safety flooring is specified increasingly to provide underfoot safety for employees, customers and public alike. Polyflor is unswerving in its commitment to maintain the level of slip resistance throughout the life of the product, in addition to providing the choice of colour, decoration, texture and ease of cleaning you would expect from a Polyflor product.

- Guaranteed levels of slip resistance
- Independently proven to be easier to clean
- Unique and patented Supratec<sup>+</sup> system
- Range of attractive colours and decorations
- Tailored products for all applications
- All ranges widely available
- Peace of mind in specifying a Polyflor safety floor

## INDEX

- 4 - 5
- 6 - 15
- 16 - 17
- 19 - 21
- 22 - 25
- 26 - 28
- 30 - 33
- 34 - 37
- 38 - 39

Choosing Polysafe gives that added reassurance from a manufacturer dedicated to offering products that are fit to serve their purpose as slip resistant safety floors, backed up by a significant commitment to new product development to suit the needs of Polyflor customers. In 2007, this approach was recognised with Polysafe being awarded the prestigious Queen's Award for Enterprise, in the category for continuous product innovation and development; a true reflection of Polysafe's high standing in the safety flooring market.

Specifications

Recommended Finishes

Slip Resistance

Performance Properties

Low Maintenance

Use Areas

Environmentally Preferable Flooring

Slip resistance assurance

- Corona
- Astral
- Wood FX
- Mosaic
- Vogue Ultra
- Strata
- Standard
- Hydro
- Ultima
- Wood Fx Acoustic

THE COMPLETE SAFETY FLOORING SOLUTION

# Polysafe - slip resistance assured for the guaranteed life

4

## POLYFLOR - 1ST TO MARKET

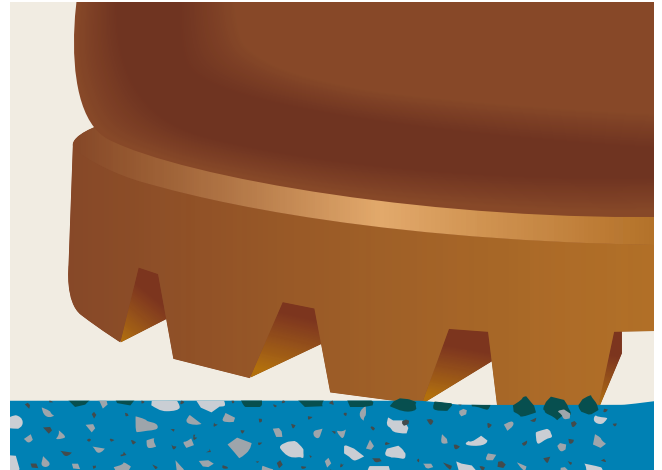
Polyflor is a true pioneer of safety flooring manufacture. As well as being the first to offer an Agrément assessment of product performance, based on appropriate maintenance of the now universal 2mm gauge product, Polyflor was also the first to launch a more decorative, multi-chip decoration in the 1990s. In 2000, the bar was raised significantly with the launch of Supratec - a patented leap in cleanability of safety floors.

Our Polysafe products have evolved and developed to meet customer needs over the years, but we have never lost sight of the rationale behind safety floors - that they offer sustainable slip resistance and that all other features such as aesthetics and cleanability are built on top of safety, never compromising it.

This philosophy is enshrined in another Polysafe declaration - that the wet slip resistance (36+) of a Polysafe product is assured for the guaranteed life of the flooring. This Polyflor guarantee is offered to assist client choice in a market being increasingly crowded with 'pseudo' safety flooring.

## HOW DOES POLYSAFE WORK?

Quite simply, slip resistance is achieved by increasing the friction between the foot and the floor.



This friction increase is obtained through the combination of aggregates within the floor such as quartz, aluminium oxide and silicon carbide, giving Polysafe safety flooring a distinctive sparkle effect. These aggregates are not simply sprinkled onto the top as a coating that will wear off over a short time in use. Instead, aggregates are incorporated throughout the full thickness of the product's wear layer to ensure slip performance can be assured for the guaranteed life of the product. The aggregates combine with the surface emboss to provide a rougher, harder friction surface to 'bite' into the under surface of footwear when walked upon and create the necessary friction and underfoot safety.

The slip resistant properties are also present where safety flooring is required for continually wet areas. Here, a more prominent emboss is used in conjunction with the aggregates to impart the necessary slip resistance for barefoot users. This also increases the floor's ability to provide a safe surface for the user when the floor is covered with water. As can be seen from the following diagram, Polysafe products offer a



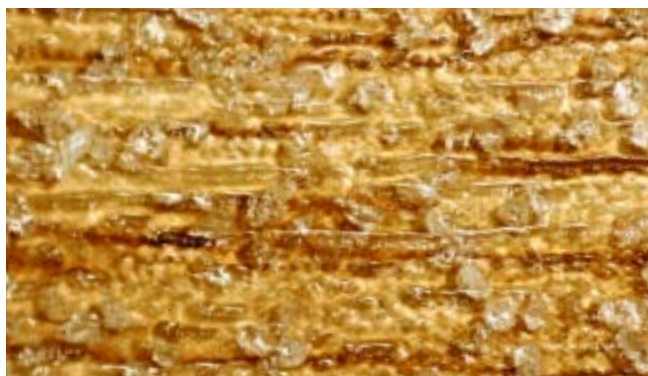
# of the product

true indication of a safe floor with aggregates throughout the product's wear layer thickness to ensure sustainability and durability in performance.

If Polysafe flooring is used in the correct areas and maintained correctly, the slip resistance will tend to improve with age. Over time, the more abrasive aggregates will be left behind and still be carrying out the job of imparting the necessary slip resistance in years to come. Conversely, hybrid products currently being sold as 'safety floors' in some instances have very thin coatings of aggregate applied or include a slightly rougher surface emboss. These products pass ex-factory ramp tests but only offer short term slip resistance that reduces after installation and wear. In terms of sustainable performance, these products offer no credible substitute to a safety vinyl containing aggregates all the way through the performance layer.



Polysafe safety flooring.



Magnification showing aggregates within Polysafe Wood FX product.

## WHY SAFETY FLOORING?

Safety flooring is typically used in public areas where there is a risk of spillage or wetness that could make the floor slippery and unsafe, such as in bathrooms, kitchens, bar serveries, toilets and changing rooms. With ongoing product development and cleaning technology such as Supratec<sup>+</sup> allowing the introduction of more attractive colours that are easier to maintain, safety flooring is now becoming more decorative and suited to more high visibility and front of house areas.

Polyflor always adheres closely to Health and Safety Executive Guidelines (HSE) in the UK, both in terms of offering products that match the needs of application areas and also by testing and measuring slip resistance against their preferred test methods (see pages 30 - 33).

## FORM V FUNCTION

Polysafe's prime function, **slip resistance** is beyond doubt. All other motivators can also be accommodated:

**Colour** - a strong range of colour and decorations to suit varying tastes

**Cleaning** - both Polysafe Standard and Supratec<sup>+</sup> products have been independently proven to lead their class in terms of cleanability and appearance retention

**Budget** - Polysafe ranges cover a variety of price points and all are readily available from Distributors nationwide and around the World

## REASSURANCE?

Previous experience in use is a strong selection criterion and one of the HSE's own recommendations. On this basis, with quite literally millions of square metres of flooring installed, Polysafe is truly a safe choice.

B E T T E R P O L Y S A F E T H A N S O R R Y !

# Polysafe Corona

HEAVY-DUTY SAFETY FLOORING WITH A MULTI-CHIP DECORATION, FEATURING THE BENEFITS OF SUPRATEC<sup>+</sup>



6

## KEY FEATURES

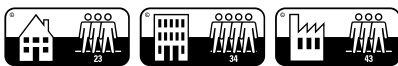
- Contains Supratec<sup>+</sup>, an exclusive polymer system with polyurethane, that provides significant and sustainable maintenance benefits.
- Colours co-ordinate with other Polyflor smooth ranges - Polyflor Prestige PUR and XL PU.
- Incorporates quartz, aluminium oxide and silicon carbide particles, to improve traction and safety underfoot.
- Fully HSE compliant, with slip resistance assured for the guaranteed life of the product -  $\geq 36$  result achieved on RRL Pendulum wet test - 4S Rubber (Slider 96), with a surface roughness of  $Rz \geq 20\mu m$ .
- Suitable for areas subject to water and other contaminant spillages in hygiene critical locations.

## TYPICAL APPLICATIONS

Washrooms, Toilet areas, Bar Serving areas, Classrooms, Laboratories, Changing rooms.

## SPECIFICATIONS

USE AREA CLASS



GAUGE: 2.0mm

AVAILABILITY: Sheet

LOCATION: Thomas More Catholic School, Purley, Surrey

Used across food technology classrooms and design materials workshops at the school, Polysafe Corona provides the required underfoot safety where pupils continually gather and move about on the floor. The incorporation of Supratec<sup>+</sup> provides significant maintenance benefits, particularly important in these teaching areas where there are risks of spillages.

*"Staff and pupil safety is important throughout the school, but especially in the food technology room and design materials workshop. Polysafe Corona is not only slip resistant - a vital benefit - but is also easy to clean and attractive to look at."*

**Mr Stan Branch**  
Assistant Head Teacher,  
Thomas More Catholic School



Drystone 5470



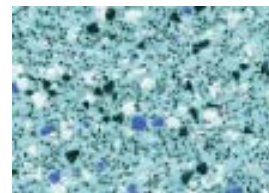
Seal 5570



Grasshopper 5540



Barley 5500



Geyser 5580



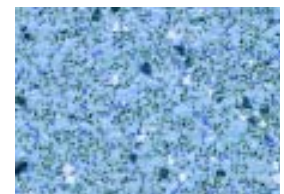
Pacific 5550



Mango 5480



Otter 5530



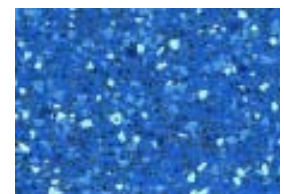
Bluebell 5510



Tulip 5520



Blackbird 5560



Seawater 5490



# Polysafe Astral

HEAVY-DUTY SAFETY FLOORING FEATURING THE SUPRATEC<sup>+</sup> POLYMER SYSTEM, WITH MULTI-FLAKE DECORATION



## KEY FEATURES

- Contains Supratec<sup>+</sup>, an exclusive polymer system with polyurethane, that provides significant and sustainable maintenance benefits.
- A popular multi-coloured flake decoration allows vibrant colours to be specified without detriment to sustainable slip resistance and maintenance.
- Incorporates quartz, aluminium oxide and silicon carbide particles, to improve traction and safety underfoot.
- Fully HSE compliant, with slip resistance assured for the guaranteed life of the product -  $\geq 36$  result achieved on RRL Pendulum wet test - 4S Rubber (Slider 96), with a surface roughness of Rz  $\geq 20\mu\text{m}$ .
- Suitable for areas subject to water and other contaminant spillages in hygiene critical locations.

## TYPICAL APPLICATIONS

Washrooms, Toilet areas, Bar Serving areas, Classrooms, Laboratories, Changing rooms.

## SPECIFICATIONS

USE AREA CLASS



GAUGE: 2.0mm

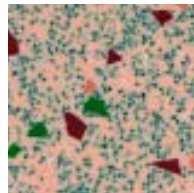
AVAILABILITY: Sheet

LOCATION: Ancoats Health Centre, Manchester

As part of a public and private partnership, this LIFT project involved over 3000m<sup>2</sup> of Polyflor vinyl being installed throughout Ancoats Health Centre, including the use of Polysafe Astral within patient treatment rooms. With the potential risk of spillages in these areas, Astral is correctly specified to provide sustainable slip resistance to patients and hospital staff. The incorporation of Supratec<sup>+</sup> means easier maintenance for cleaning staff and long term life cycle maintenance cost savings when compared against traditional safety flooring.

*“Underfoot safety for patients and staff is of paramount importance and Polysafe Astral safety flooring provides the ideal solution for the centre treatment rooms where spillages can increase the slip risk. The fact that Astral, with its special soil releasing formula, is so much easier to clean and maintain is a valuable added bonus.”*

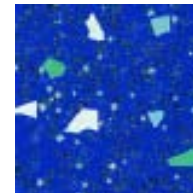
**John Gilmore,**  
Project Manager John Laing plc



Orion Beige 4280



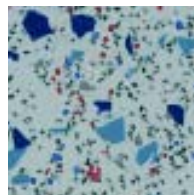
North Star 4370



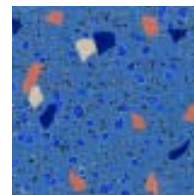
Nebula Blue 4200



Sunspot 4410



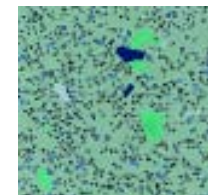
Sculptor 4400



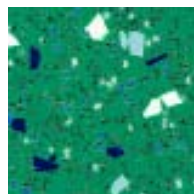
Polaris 4250



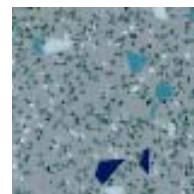
Solstice 4260



Isis 4380



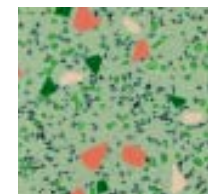
Aquarius 4220



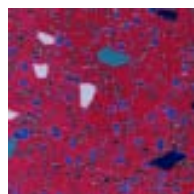
Starburst 4300



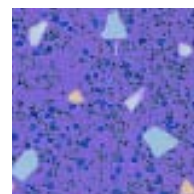
Lunar Grey 4240



Vega Green 4270



Red Sky 4310



Space Mauve 4230



# Polysafe Wood FX

DECORATIVE HEAVY-DUTY SAFETY FLOORING FEATURING CONTEMPORARY WOOD DESIGNS



8

## KEY FEATURES

- Highly sophisticated designs replicating popular wood styles.
- Incorporates clear aluminium oxide particles to improve traction and safety underfoot.
- Ideal for front or back of house areas where aesthetics and slip resistance are important.
- Reinforced with polyurethane for improved cleaning and maintenance.
- Fully HSE compliant, with slip resistance assured for the guaranteed life of the product -  $\geq 36$  result achieved on RRL Pendulum wet test - 4S Rubber (Slider 96), with a surface roughness of Rz  $\geq 20\mu\text{m}$ .

## TYPICAL APPLICATIONS

Corridors, circulation areas, receptions, hospital wards, classrooms, shops, cafes, retail areas, bar areas, washrooms, toilet areas

## SPECIFICATIONS

USE AREA CLASS



GAUGE: 2.0mm, wear layer 0.7mm

AVAILABILITY: Sheet



Golden Maple 3277



Warm Beech 3297



Pear 3977



American Oak 3387



Cherry 3307



Rustic Oak 3337



European Oak 3347



Silver Wood 3237

LOCATION: St Anthony's Hospital,  
North Cheam, Surrey

Highly suited to the healthcare sector, Wood FX offers complete safety with style throughout the ward area of St Anthony's Hospital in North Cheam, a leading independent hospital in the UK.

With American Oak used throughout St Mary's ward of the hospital, the combination of warm hues and clear safety aggregates impregnated into the product means the hospital's flooring is less institutional than traditional floorings. Reflective of natural materials, Wood FX offers a high clarity in design and can help encourage patient wellbeing, whilst offering sustainable slip resistance to give reassurance to all users.

*"The floorcovering does everything that we want it to. The timber effect design is extremely attractive, it cleans easily for good infection control and the sustained slip resistance ensures the safety of our patients and staff."*

**Steve Leverington**

Site Services Manager, St Anthony's Hospital



\*This product is a highly realistic replication of natural materials. Hence, on many designs, features such as knots will be present, as well as natural colour variation



# Polysafe Mosaic

HEAVY-DUTY SAFETY FLOORING FEATURING A HIGH DENSITY FLAKE DECORATION WITH PEARLESCENCE

## KEY FEATURES

- Attractive non-directional decoration with pearlescent flakes.
- Incorporates clear aluminium oxide and coloured quartz to improve traction and safety underfoot.
- Ideal for front or back of house areas where aesthetics and slip resistance are important.
- Specially engineered with a closed surface finish to minimise soil uptake and maximise ease of cleaning.
- Fully HSE compliant, with slip resistance assured for the guaranteed life of the product -  $\geq 36$  result achieved on RRL Pendulum wet test - 4S Rubber (Slider 96), with a surface roughness of  $Rz \geq 20\mu m$ .

## TYPICAL APPLICATIONS

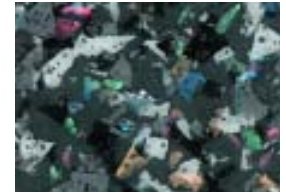
Corridors, circulation areas, receptions, hospital wards, classrooms, shops, cafes, retail areas, bar areas, washrooms, toilet areas



Grey Fusion 4105



Orient Grey 4135



Graphite Pearl 4165



Akoya 4125



Earthstone 4155



Sunstone 4185



Green Opal 4195



Freshwater 4145



South Sea 4175

## SPECIFICATIONS

USE AREA CLASS



GAUGE: 2.0mm, wear layer 0.7mm

AVAILABILITY: Sheet

LOCATION: Bury Grammar School, Bury, Lancs

The high styling of Polysafe Mosaic has brought classrooms to life at a brand new purpose-built kindergarten opened at Bury Grammar School. Over 2000m<sup>2</sup> of the Grey Fusion colourway has been specified and installed across numerous classrooms and teaching areas, staff rooms, kitchenettes and washrooms in this flagship facility.

Mosaic's high design appeal complements the overall bright and spacious design scheme to uplift mood and encourage learning, whilst also providing vital underfoot safety to both children and staff alike. In areas where children are present and spillages are likely, Polysafe Mosaic is formulated with aggregates to offer a low slip risk.

*"We are delighted with the flooring. The attractive colours and styles have helped us create exactly the ambience we wanted in each area and the vital underfoot safety of pupils and staff is enhanced by the slip resistant floorings. Overall an excellent job."*

**Peter Skinner**  
Project Director, Bury Grammar School



# Polysafe Vogue Ultra

HEAVY-DUTY, DECORATIVE SAFETY FLOORING WITH MULTI-CHIP DESIGN



## KEY FEATURES

- Appealing multi-chip decoration available in twelve colourways.
- Incorporates quartz crystals, aluminium oxide and silicon carbide particles, to improve traction and safety underfoot.
- Fully HSE compliant, with slip resistance assured for the guaranteed life of the product -  $\geq 36$  result achieved on RRL Pendulum wet test - 4S Rubber (Slider 96), with a surface roughness of  $Rz \geq 20\mu m$ .
- Suitable for areas subject to water and other contaminant spillages in hygiene critical locations.

## TYPICAL APPLICATIONS

Washrooms, Toilet areas, Storage and Utility areas, Bar Serving areas, Laundry and Sluice rooms, Laboratories, Changing rooms.

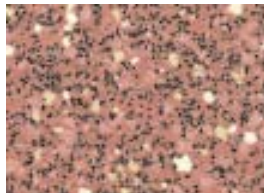
## SPECIFICATIONS

USE AREA CLASS



GAUGE: 2.0mm

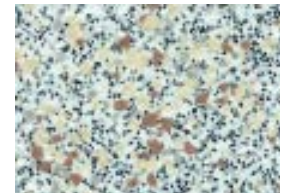
AVAILABILITY: Sheet



Dune 4690



Oystershell 4800



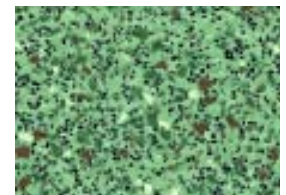
Bisque 4860



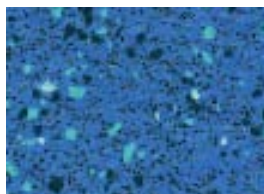
Firestar 4790



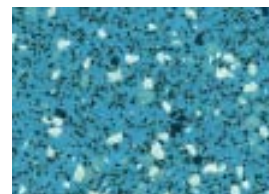
Meadow 4810



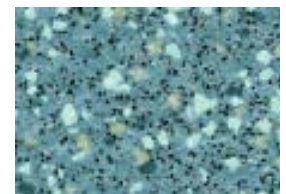
Forest Pine 4500



Steel Blue 4740



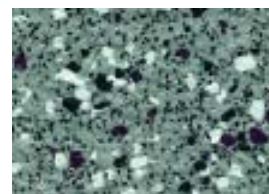
Marine 4870



Moonbeam 4780



Nightsky 4760



Winter Dusk 4730



Woodland Grey 4770

LOCATION: Pennells Garden Centre,  
South Hykeham, Lincolnshire

In the food preparation areas at the newly refurbished Gardeners' Restaurant, Polysafe Vogue Ultra has been specified to provide workers with the reassurance of underfoot safety. Vogue Ultra's sustainable slip resistant performance and full HSE Compliance reduces the risk of workers slipping, particularly when faced with spillages on a daily basis.

Also used within the restaurant area is Polysafe Wood FX in the staff servery, along with Expona and Bevel Line luxury vinyl tiles installed into self-serve and front of house dining areas.

*"This excellent combination of products has enabled us to achieve two key objectives – enhanced slip resistance for restaurant staff working at the serveries and in the kitchen and a really stylish ambience for diners. We are extremely pleased with the end result."*

**Richard Pennell**  
Proprietor, Pennells Garden Centre



# Polysafe Strata

HEAVY-DUTY SAFETY FLOORING WITH A MULTI-COLOURLED FLAKE DECORATION

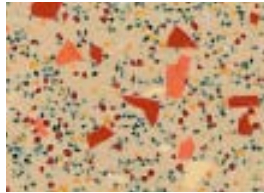


## KEY FEATURES

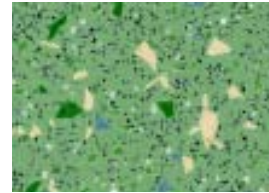
- Incorporates quartz, aluminium oxide and silicon carbide particles, to improve traction and safety underfoot.
- Fully HSE compliant, with slip resistance assured for the guaranteed life of the product -  $\geq 36$  result achieved on RRL Pendulum wet test - 4S Rubber (Slider 96), with a surface roughness of  $Rz \geq 20\mu m$ .
- A popular multi-coloured flake decoration allows vibrant colours to be specified without detriment to sustainable slip resistance and maintenance.
- Suitable for areas subject to water and other contaminant spillages in hygiene critical locations.

## TYPICAL APPLICATIONS

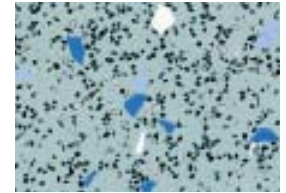
Washrooms, Toilet areas, Food preparation areas, Kitchens, Bar Serving areas, Laundry and Sluice rooms, Changing rooms, Cloakrooms.



Arkose 4190



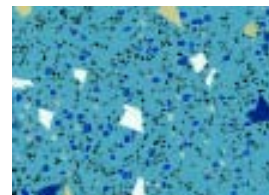
Greenstone 4440



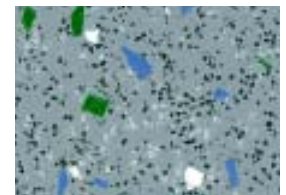
Feldspar 4620



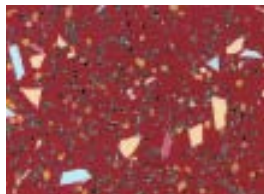
Elvan Fawn 4180



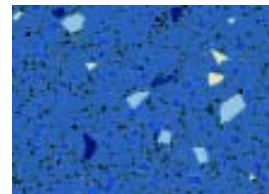
Calcite Blue 4460



Bedrock 4170



Marlstone 4630



Deep Sapphire 4050



Black Opal 4080

## SPECIFICATIONS

USE AREA CLASS



GAUGE: 2.0mm

AVAILABILITY: Sheet

LOCATION: Millennium Stadium, Cardiff, South Wales

At the prestigious Millennium Stadium in Cardiff, Polysafe Strata has been specified within tunnel entrance and stairway areas to give continued safety performance to stars of the sporting world. Regularly subjected to high footfall across the floor including users with studded footwear, as well as contamination brought in from the outside, Strata's concentration of aggregates throughout the product thickness means slip resistance is sustained and product durability is ensured for years to come.



Please note: due to limitations of colour printing, actual samples should be seen before colour selection is made.

# Polysafe Standard

HEAVY-DUTY SAFETY FLOORING WITH A TRADITIONAL DECORATION



## KEY FEATURES

- Incorporates quartz, aluminium oxide and silicon carbide particles, to improve traction and safety underfoot.
- Proven to be an easier to clean standard safety flooring.
- Best selling range offering extremely good value.
- Fully HSE compliant, with slip resistance assured for the guaranteed life of the product -  $\geq 36$  result achieved on RRL Pendulum wet test - 4S Rubber (Slider 96), with a surface roughness of  $Rz \geq 20\mu m$ .
- Suitable for areas subject to water and other contaminant spillages in hygiene critical locations.

## TYPICAL APPLICATIONS

Washrooms, Toilet areas, Food preparation areas, Kitchens, Bar Serving areas, Laundry and Sluice rooms, Changing rooms, Cloakrooms.

## SPECIFICATIONS

USE AREA CLASS

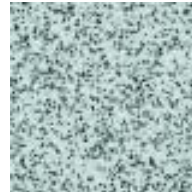


GAUGE: 2.0mm, 2.5mm, 3.5mm\*

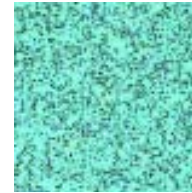
AVAILABILITY: Sheet



Elmwood 4520



Ash Grey 4540



Cool Aqua 4570



Storm Blue 4560



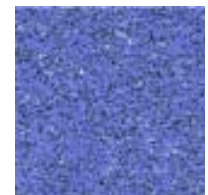
Autumn Beige 4140



Silver Birch 4020\*



Cedar Blue 4060\*



Lilac Blue 4580



Maple Fawn 4030\*



Alpine Green 4110



Arctic Blue 4130



Nordic Grey 4090



Antique Copper 4120



Redwood 4040\*



Twilight 4490



Black Walnut 4150

LOCATION: Chelsea Football Club, London

The multitude of colourways available in the Polysafe Standard palette enabled striking reproductions to be made of Chelsea's evolution of club emblems at the Centenary Hall exhibition. The walkway creates an aesthetic focal point to the exhibition's many visitors whilst offering the key requisites of underfoot safety and slip resistance.

*"We are very pleased with the flooring CWC recommended and installed. Not only is it safer underfoot for the many people visiting the Centenary Hall but also the colour choice available was ideal for reproducing the inset club logos. The overall effect is excellent"*

**Simon Arthur**  
Group Operations Director,  
Chelsea Football Club

\* 4 colours are available in 3.5mm gauge for extra heavy-duty areas.



†For details of BRE Environmental Ratings for safety flooring installed in specific sector areas, see pages 16-17

# Polysafe Hydro

HEAVY-DUTY SAFETY FLOORING WITH A RAISED EMOSS,  
FOR USE IN BAREFOOT AND CONTINUALLY WET AREAS



## KEY FEATURES

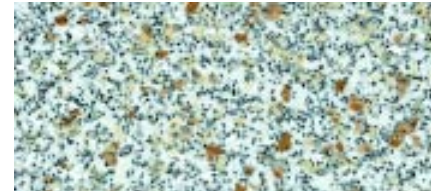
- Designed for use with barefoot or soft soled footwear in continually wet areas.
- Features a raised pimple emboss and a choice of multi-chip or traditional decorations.
- Fully HSE compliant, with slip resistance assured for the guaranteed life of the product -  $\geq 36$  result achieved on RRL Pendulum wet test - TRL Rubber (Slider 55), with a surface roughness of  $R_z \geq 20\mu m$ .

## TYPICAL APPLICATIONS

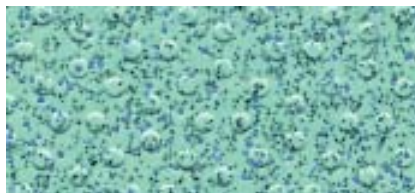
Swimming pool surrounds, walk-in showers, hydrotherapy areas, barefoot recreational areas such as changing room facilities, barefoot walkways.



White Stone H4930



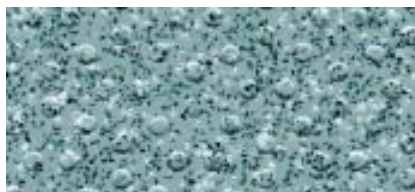
Bisque H4860



Sheared Slate H4960



Oystershell H4800



Tempered Steel H4940



Woodland Grey H4770



Blue Forge H4850



Marine H4870

## SPECIFICATIONS

GAUGE: 2.0mm  
AVAILABILITY: Sheet

LOCATION: Aston Villa FC Training Complex,  
Staffordshire

The installation of Polysafe Hydro within walk-in shower areas at a new, ultra-modern training complex is helping Aston Villa's squad keep on their feet. A combination of safety aggregates and a pimped emboss ensures sustainable slip resistant performance is achieved for the guaranteed life of the product. Regularly subjected to barefoot use, the product's HSE Compliance and low slip risk classification gives user confidence in this continually wet area.

*"Safety underfoot for our players is obviously a prime consideration and we are pleased with the performance of Polysafe in these key areas. That the flooring is also attractive and easy to clean is a bonus."*

**Tony Diffley**  
Stadium Manager, Aston Villa Training  
Complex



# Polysafe Ultima



SAFETY FLOORING WITH A MULTI-CHIP DECORATION. DESIGNED FOR HEAVY USE AREAS WHICH REQUIRE ENHANCED SLIP RESISTANCE

## KEY FEATURES

- Enhanced levels of traction and safety underfoot due to high aggregate concentration and a specially engineered emboss.
- Surface roughness Rz  $\geq 70\mu\text{m}$  to deal with high viscosity contaminants.
- Ideal for high footfall areas that require increased levels of slip resistance such as food preparation areas or busy commercial kitchens.
- Fully HSE compliant, with slip resistance assured for the guaranteed life of the product -  $\geq 40$  result achieved on RRL Pendulum wet test - 4S Rubber (Slider 96), with a surface roughness of Rz  $\geq 70\mu\text{m}$ .
- An R11 rated product.

## TYPICAL APPLICATIONS

Commercial kitchens and food preparation areas.

## SPECIFICATIONS

USE AREA CLASS



GAUGE: 2.5mm

AVAILABILITY: Sheet

LOCATION: The Cooking School, at Dean Clough

In a brand new state-of-the-art Cooking School designed to teach culinary expertise to adults of all skill levels, Polysafe Ultima is used to give increased slip resistance into the high specification kitchen area.

With regular cooking courses held throughout the year and taught by specialists in their field, Ultima's increased slip resistance gives students added reassurance in this demanding area. With a number of workstations housed within an oval teaching area, the floor is continually subjected to continuous footfall and movement across the floor. Spillages such as olive oil, cooking stock and margarine are a constant risk and Polysafe Ultima is correctly specified to ensure low slip potential in these testing conditions.

*"During the initial design concept, Polysafe Ultima was the clear flooring choice because of its enhanced slip resistance and proven use within busy kitchen areas. We have found that not only is the floor easy to clean and durable, but it complements the décor in our flagship, high specification kitchen. The school's clean design is further highlighted by the use of Polyclad Plus PU, an ultra-hygienic sheet vinyl for walls and ceilings."*

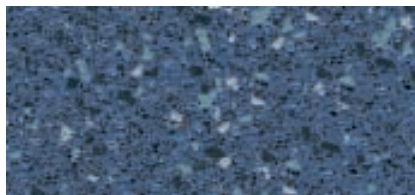
**Anita Cormac**  
Executive Director,  
The Cooking School at Dean Clough, Halifax



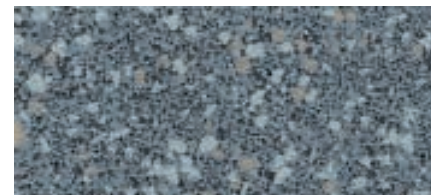
Iron Ore 4340



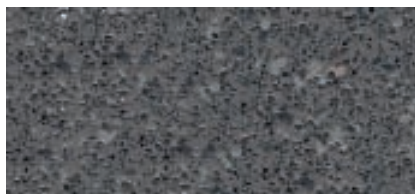
Mortar 4360



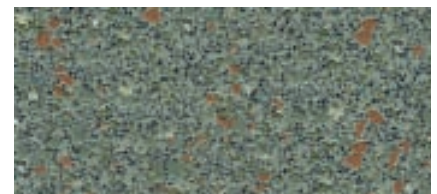
Bluestone 4390



Pearl Granite 4330



Aurora Grey 4290



Baltic Green 4350



# Polysafe Wood FX Acoustic

DECORATIVE HEAVY-DUTY SAFETY FLOORING WITH ACOUSTIC PROPERTIES



## KEY FEATURES

- Highly sophisticated designs replicating popular wood styles with acoustic foam backing.
- $\geq 19$ dB impact sound reduction level to exceed Building Regulations Part E requirements.
- Ergonomically designed for anti-fatigue benefits.
- Incorporates clear aluminium oxide particles to improve traction and safety underfoot.
- Ideal for commercial or residential areas where sound insulation and slip resistance is important.
- Fully HSE compliant, with slip resistance assured for the guaranteed life of the product -  $\geq 36$  result achieved on RRL Pendulum wet test - 4S Rubber (Slider 96), with a surface roughness of  $R_z \geq 20\mu\text{m}$ .

## TYPICAL APPLICATIONS

Corridors, circulation areas, hospital wards, classrooms, bar areas, general living quarters, retail workstations, washrooms, toilet areas.

## SPECIFICATIONS



GAUGE: 3.7mm, wear layer 0.65mm

AVAILABILITY: Sheet

LOCATION: Lambeth Academy, London

A blend of contemporary design, sustainable slip resistance, high acoustic performance and ease of maintenance is featured in the Polysafe Wood FX Acoustic installation within corridors at Lambeth Academy in London.

With a high footfall of students moving across the floor at regular periods throughout the day, the choice of Wood FX Acoustic is ideal to dampen impact sound transfer between rooms and promote a quiet working environment that can foster learning. For students and teachers standing on the floor for prolonged periods, the range offers underfoot comfort and anti-fatigue benefits, whilst giving the slip resistance demanded in areas where spillages can occur.

*"Our state-of-the-art premises, designed by award winning architects demand the specification of the best possible products. As well as being extremely attractive, Polysafe Wood FX Acoustic minimises noise transfer in our busy corridors and also ensures enhanced under foot safety for students, staff and visitors. Cleanability and the facility to maintain regularly were other deciding factors. All in all, the ideal choice."*

**Geoff Gilbert**  
Academy Site Manager, Lambeth Academy



Silver Wood 3232



European Oak 3342



Rustic Oak 3332



Cherry 3302



American Oak 3382



Pear 3972



Warm Beech 3292



Golden Maple 3272



\*This product is a highly realistic replication of natural materials. Hence, on many designs, features such as knots will be present, as well as natural colour variation

# Environmentally preferable flooring

16

## BRE GLOBAL RATINGS

There are a number of international schemes used for assessing the environmental impact of a building product over its whole life. The BRE (Building Research Establishment) Global environmental assessment is used as the main specification tool to convey the environmental profiles of safety flooring.

It is widely recognised that the BRE Global environmental assessment methods are exceptionally thorough and very well respected, both in the UK and increasingly, in countries around the world.

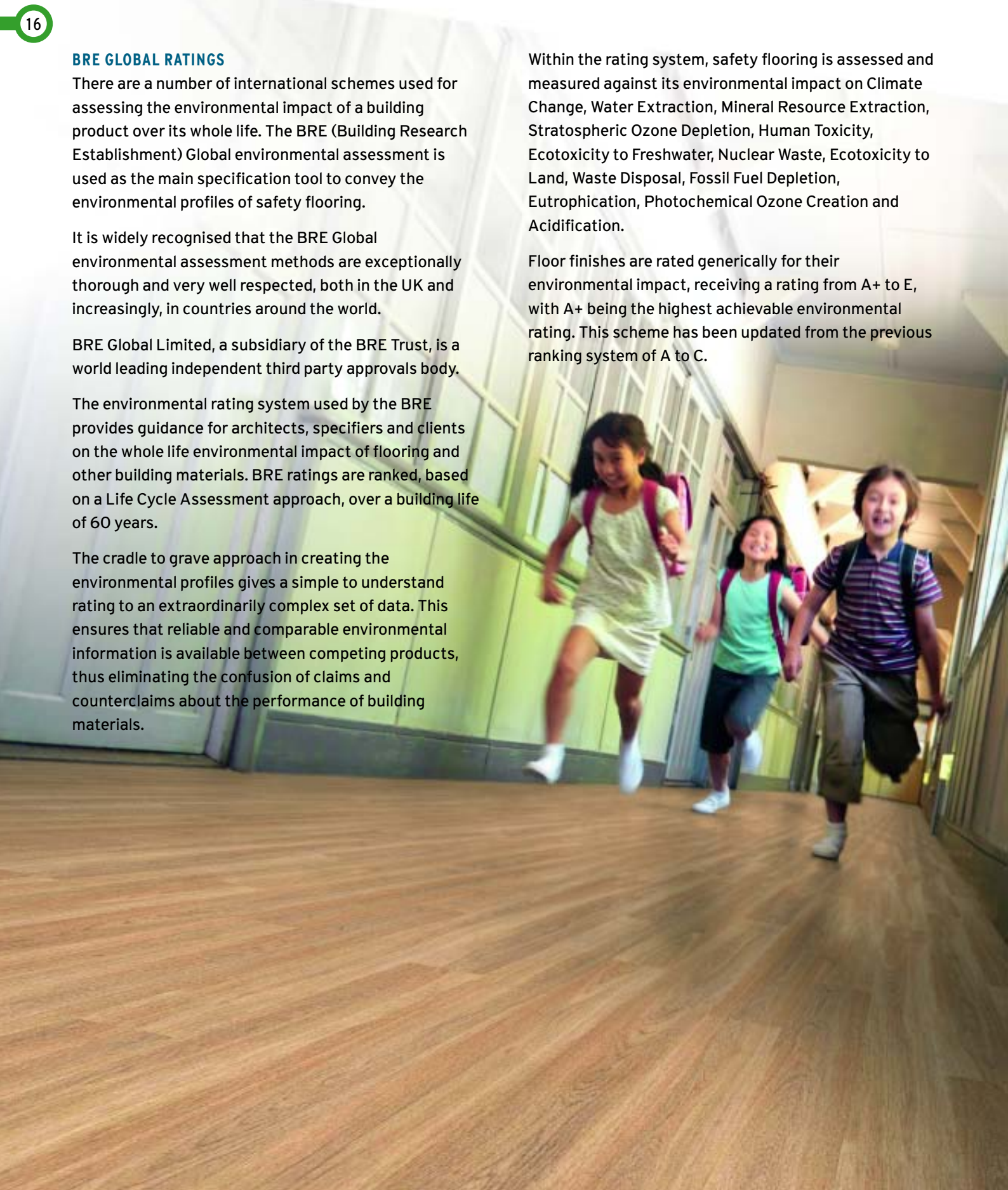
BRE Global Limited, a subsidiary of the BRE Trust, is a world leading independent third party approvals body.

The environmental rating system used by the BRE provides guidance for architects, specifiers and clients on the whole life environmental impact of flooring and other building materials. BRE ratings are ranked, based on a Life Cycle Assessment approach, over a building life of 60 years.

The cradle to grave approach in creating the environmental profiles gives a simple to understand rating to an extraordinarily complex set of data. This ensures that reliable and comparable environmental information is available between competing products, thus eliminating the confusion of claims and counterclaims about the performance of building materials.

Within the rating system, safety flooring is assessed and measured against its environmental impact on Climate Change, Water Extraction, Mineral Resource Extraction, Stratospheric Ozone Depletion, Human Toxicity, Ecotoxicity to Freshwater, Nuclear Waste, Ecotoxicity to Land, Waste Disposal, Fossil Fuel Depletion, Eutrophication, Photochemical Ozone Creation and Acidification.

Floor finishes are rated generically for their environmental impact, receiving a rating from A+ to E, with A+ being the highest achievable environmental rating. This scheme has been updated from the previous ranking system of A to C.







### 2009 BRE GREEN GUIDE TO SPECIFICATION

In 2009, BRE Global published a new online Green Guide to Specification, with new generic ratings given for floor finishes used in buildings. This Guide is thorough and logical, leading to the increasing influence of this scheme around the world from its UK base. The results for varying categories of flooring are shown below.

As shown, vinyl safety flooring receives the highest A+ rating in major use areas within the healthcare and education sectors. This means that specifying vinyl safety flooring in these areas offers the least environmental impact and best environmental performance.

These generic ratings apply to specific categories of flooring installed into use areas within different generic building types - for example, safety flooring, to the EN 13845 standard, rated 34/43 for use area and installed in a healthcare environment. The ratings are based on a typical pan-European manufactured product and give a good indication of the environmental impact of Polysafe and other Polyflor products made to each of the various EN defined categories - safety, homogeneous, LVT etc.

Full details of the BRE Green Guide to Specification are best viewed at [www.thegreenguide.org.uk](http://www.thegreenguide.org.uk)

### BREEAM

BREEAM (Building Research Establishment Environmental Assessment Method) is the world's leading and most widely used environmental assessment method for buildings. It sets a standard for best practice in sustainable design and has become the de-facto measure of a building's environmental performance. BREEAM can be tailored to assess any building type in any location in the world.

The Ratings for floor finishes provided in the Green Guide are part of BREEAM and help architects to address wide-ranging environmental and sustainability issues. By being able to calculate a BREEAM score for a building enables developers and designers to prove the environmental credentials of their buildings to planners and clients.

Using vinyl safety flooring products will have a beneficial impact on a BREEAM assessment and excellent BREEAM scores are particularly relevant for Government funded projects. Polyflor's vast range of safety flooring products, technical support and best value flooring means a specifier can maximise a building's BREEAM score without any compromise on performance, choice or budget.

For further details of Polyflor's full stable of environmental credentials that permeate across our full business philosophy, please request a copy of our **2009 Environmentally Preferable Flooring Report**. Or view the report online via [www.polyflor.com/environment](http://www.polyflor.com/environment). Amongst other things, here you will find details of Polyflor's commitment to Energy Efficiency as well as our involvement in various international recycling schemes. This includes support to Recovinyl, a pioneering and industry wide Government recycling programme, to collect post-consumer waste such as safety flooring. This includes on-site waste, uplifted end-of-life flooring and old stock roll-ends.

Sector	CATEGORY OF FLOORING					
	Homogeneous	Heterogeneous	LVT	Safety	Linoleum	Rubber
Standard	EN 649	EN 649	EN 649	EN 13845	EN 548	EN 12199 & EN 1817
Health	A+	A+	A+	A+	A+	A+
Education	A+	A+	A+	A+	A+	A+
Commercial	A	A	A	A	A	A
Retail	A+/A+	A+/A+	A+/A	A+/A	A+/A+	A+/A+
Domestic	A	A	A	B	A	A



**4 STEPS TO SAFETY**

- 1**  
36+ RRL  
Pendulum Wet Test
- 2**  
Surface Roughness  
 $R_z \geq 20\mu\text{m}$
- 3**  
Proven Cleanability
- 4**  
Sustainable Slip  
Resistance

**HSE COMPLIANT**



# Use Areas

All Polysafe ranges are suitable for areas where there are risks of water spillages and other contaminants, achieving a surface roughness of  $Rz \geq 20\mu m$  and  $\geq 36$  in the RRL Pendulum wet test (4S Rubber/Slider 96). Polysafe Ultima is specifically designed to deal with high viscosity contaminants such as grease and cooking oil, achieving a typical surface roughness result of  $Rz \geq 70\mu m$  and  $\geq 40$  in the Pendulum wet test (4S Rubber/Slider 96). Polysafe Corona and Polysafe Astral are particularly suitable in areas which are more visible to the public, where the low maintenance attributes of Supratec<sup>+</sup> combine with attractive colours and decorative options. Polysafe Corona is also ideal where colour co-ordination in close proximity to Polyflor smooth vinyl is required across use areas.

Polysafe Wood FX and Polysafe Mosaic are decorative safety ranges that combine a high visual appeal with sustainable slip resistance, for areas in both front and back of house where there is potential for spillage. Polysafe Wood FX Acoustic is a safety floor that adds a benefit of impact sound reduction to exceed the requirements set down in the Building Regulations Part E and the resistance to the passage of sound between rooms. This acoustic performance means the product is suited to multi-storey dwellings, rooms for residential purposes which are used by one or more persons to live and sleep as well as in school buildings. In these areas, reasonable protection against noise transfer is an important requirement during the construction and design of a facility.

Polysafe ranges are also certified by the British Board of Agrément (BBA) as G5ws, indicating the products are fit for their intended use for at least 10 years (2mm gauge) provided they are installed to Polyflor instructions, and are suitable for heavily trafficked public areas or commercial buildings where the floorcovering can be welded to tolerate standing water.

With an independent assessment by the BBA, Polysafe's product performance is assured for at least 10 years in recommended use areas. With correct maintenance, the appearance, colour and slip resistance will be retained during this period.

The recommendations overleaf give only an indicative guide as to product suitability in specific areas based on Polyflor's knowledge and experience. Other Polysafe ranges will also be suitable for the areas indicated.

For further information on product suitability or advice on use areas not listed, consult Polyflor Customer Technical Services on +44 (0)161 767 1912 or email [tech@polyflor.com](mailto:tech@polyflor.com).

## T O P T I P S

### RISK ASSESSMENT

Before a floorcovering is specified, an initial risk assessment of the floor area is recommended, to ensure that all the potential risks for slip are taken into account, to determine the type of flooring required.

The following questions need to be considered:

#### Likely contaminants in the area

- will the flooring receive regular oil, grease or other forms of contamination to necessitate the need for a more specialist safety floor?

#### Maintenance

- how is the floor going to be cleaned and how often?

#### Footwear

- is this controlled or is the area open to the public?

#### Nature of traffic and behaviour of users

- what will be the likely level of footfall and user movement on the floor? Will users be continually pushing and pulling trolleys, will children be running etc?

#### Life Expectancy

- does the level of footfall and punishment the floor will take over the years require a product with a 10 year guarantee?

#### Aesthetics

- is it important for the safety floor to be very visible to the public with a requirement to be decorative?

Application/Location	Polysafe Corona	Polysafe Astral	Polysafe Wood FX	Polysafe Mosaic	Polysafe Vogue Ultra	Polysafe Strata	Polysafe Standard	Polysafe Hydro	Polysafe Ultima	Polysafe Wood FX Acoustic	Application/Location
<b>COMMERCIAL</b>											<b>HEALTHCARE</b>
Corridors	■	■	■	■						■	Bathroom/Cleansing Room - showers
Food preparation areas◆	■	■	■	■	■	■	■		■		Bathroom - toilets
Kitchen◆	■	■	■	■	■	■	■		■		Changing Rooms*
Laboratory	■	■	■	■							Dining Halls - Serving areas
Receptions	■	■	■	■					■		Hospital Wards
Restaurant/Dining Hall areas	■	■	■	■	■	■	■		■		Hydrotherapy areas
Stairs	■	■	■	■							Kitchens◆
Utility/Storage areas			■	■	■	■	■				Laboratories
<b>EDUCATION</b>											Laundry/Utility Rooms
Art/Design resource areas	■	■	■	■						■	Patient Recovery Rooms
Bathroom - showers								■			Patient Treatment Rooms
Bathroom - toilets	■	■	■	■	■	■	■			■	Restaurant/Dining Halls/Canteens
3D and 2D art rooms	■	■	■	■						■	Sluice Rooms
CDT and Craft rooms	■	■	■	■						■	Stairways
Changing rooms*	■	■	■	■	■	■	■	■		■	Utility/Storage areas
Chemical stores	■	■	■	■							Ward Kitchens◆
Circulation areas	■	■	■	■						■	<b>RESIDENTIAL CARE</b>
Cleaners' stores			■	■	■	■	■				Bathrooms - bathing areas
Cloakrooms			■	■	■	■	■			■	Bathrooms - en suites
Corridors/Walkways	■	■	■	■						■	Bathrooms -showers
Dark rooms	■	■	■	■							Bathrooms - toilets
Food rooms◆	■	■	■	■	■	■	■		■		Conservatories
Kitchens◆	■	■	■	■	■	■	■		■		Corridors
Kitchen staff and stores	■	■	■	■	■	■	■				Dining areas
Receptions	■	■	■	■						■	Entrance Halls
Science Labs	■	■	■	■						■	Kitchens◆
Science prep rooms	■	■	■	■						■	Lounge/Drawing rooms
Serveries	■	■	■	■	■	■	■		■	■	Patient Bedrooms
Stairways	■	■	■	■							Serveries
Utility/Storage areas			■	■	■	■	■				Stairways
<b>LEISURE</b>											Utility/Storage areas
Bathroom - en suites	■	■	■	■	■	■	■	■		■	<b>ELECTRONICS MANUFACTURING</b>
Bathroom - showers								■			Bathroom - toilets
Bathroom - toilets	■	■	■	■	■	■	■			■	Staff Canteens/Dining Halls
Cafeteria/Bar Serving areas			■	■	■	■	■			■	Staff Kitchens◆
Changing Rooms*	■	■	■	■	■	■	■	■		■	<b>PHARMACEUTICAL</b>
Commercial Kitchens◆	■	■	■	■	■	■	■		■		Bathroom - toilets
Entrance areas	■	■	■	■						■	Canteen
Exhibition display areas	■	■	■	■						■	Laboratory
Hydrotherapy areas								■			Staff Kitchens◆
Stairway	■	■	■	■							Utility/Storage areas
Swimming pool surrounds/walkways								■			
Utility/Storage areas			■	■	■	■	■				

Polysafe Corona	Polysafe Astral	Polysafe Wood FX	Polysafe Mosaic	Polysafe Vogue Ultra	Polysafe Strata	Polysafe Standard	Polysafe Hydro	Polysafe Ultima	Polysafe Wood FX Acoustic	Application/Location	Polysafe Corona	Polysafe Astral	Polysafe Wood FX	Polysafe Mosaic	Polysafe Vogue Ultra	Polysafe Strata	Polysafe Standard	Polysafe Hydro	Polysafe Ultima	Polysafe Wood FX Acoustic	
										<b>RETAIL</b>											
										Bathrooms - toilets											
										Canteens/Dining Halls											
										Changing Rooms*											
										Customer & Staff Changing Rooms											
										Customer Retail areas											
										Kitchen♦											
										Serveries											
										Utility/Storage areas											
										<b>SOCIAL HOUSING</b>											
										Bathroom											
										Entrance areas											
										Hallways											
										Kitchens											
										Lounge areas											
										Showers											
										Stairways											
										<b>STUDENT ACCOMMODATION</b>											
										Bathrooms - en suites											
										Bedrooms											
										Circulation areas											
										Corridors											
										Kitchens♦											
										Receptions											
										Showers											
										Stairways											
										<b>GENERAL</b>											
										Autopsy Rooms											
										Bakeries without rack ovens											
										Bar Serveries											
										Chemical Processing											
										Circulation areas											
										Fast Food Kitchens & Serveries											
										Fish Processing areas											
										Food Processing (Butter and Cheese Packing)											
										Light Engineering & Industrial use											
										Meat Cutting/Preparation rooms											
										Mortuaries											
										Ramps											
										Transport Applications											
										Trolley areas											
										Veterinary Rooms											
										Wash Bays											
										Wet Chemical areas											

♦ Product recommendation is dependent on the likely viscosity of contaminants in the use area.  
 \* Specification of profiled or non-profiled safety flooring is dependent on an end user's risk assessment.  
 Contact Polyflor Customer Technical Services for further guidance.

# The Home of Low Maintenance

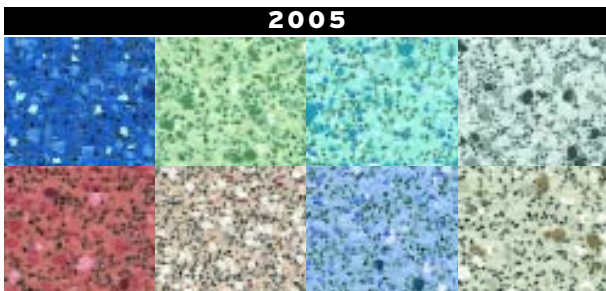
## Supratec<sup>+</sup> - the journey

22

The proven maintenance benefits our safety flooring provides is just another reason why Polyflor's position as the leaders in easy to clean safety flooring is unrivalled.



**2001** Polyflor became the first manufacturer to fully patent and deliver low maintenance safety flooring with the launch of Polysafe Astral & Design with Supratec, a unique polymer system applied to the product. This new advancement set new standards in the cleanability of safety flooring and truly signposted the future direction of the safety flooring market.



**2005** With the demand for safety flooring ever growing and maintenance being a key requisite for specification, Polyflor's dedicated policy of continued product research and development allowed us to introduce Polysafe Corona - a new breed of safety flooring specially formulated with 2nd generation Supratec<sup>+</sup>, a soil releasing polymer system enhanced with polyurethane.

The exclusively developed cleaning technology of Supratec<sup>+</sup> is again available on the Polysafe Astral range, giving significant and sustainable maintenance benefits over traditional untreated products. Noticeable improvements have been seen over first generation Supratec in terms of dirt pick-up, dirt retention and ease of maintenance. The application of Supratec<sup>+</sup> also allows maintenance costs and environmental impact to be kept to a minimum, reducing the need for energy intensive cleaning, chemical usage and water consumption. This easier maintenance regime also leads to around **60%** life cycle cost savings over a span of 15 years when compared to traditional untreated safety floors. See table opposite:

UP TO  
**60%**  
MAINTENANCE  
COST SAVING



**SUPRATEC<sup>+</sup> MAINTENANCE COST COMPARISON [100m<sup>2</sup> over 15 years]**

TRADITIONAL SAFETY FLOORING					POLYSAFE WITH SUPRATEC <sup>+</sup>				
ACTIVITY	TIME [MINS]	LABOUR & MATERIALS	FREQUENCY	COST PER ANNUM	COST PER ANNUM	FREQUENCY	LABOUR & MATERIALS	TIME [MINS]	ACTIVITY
SWEEP	17.24	£2.07	EVERY DAY	£755.55	£518.30	EVERY DAY	£1.42	12.93	SWEEP
SPRAY	—	—	—	—	£160.60	EVERY DAY	£0.44	4.00	SPRAY
MICRO MOP	—	—	—	—	£240.09	EVERY DAY	£0.66	6.00	MICRO MOP
DAMP MOP	14.05	£1.69	EVERY DAY	£616.85	—	—	—	—	DAMP MOP
MACHINE SCRUB	54.05	£6.49	TWICE A WEEK	£674.96	—	—	—	—	MACHINE SCRUB
WET VACUUM	20.48	£2.46	TWICE A WEEK	£255.84	—	—	—	—	WET VACUUM
TOTAL COST PER ANNUM				£2,303.20	£918.99	TOTAL COST PER ANNUM [SAVING 60%]			
TOTAL COST OVER 15 YEARS				£34,548	£13,785	TOTAL COST OVER 15 YEARS [SAVING 60%]			

SOURCE: Miscellaneous Productivity Rating for Hard Floors, The British Institute of Cleaning Science.

Further independent cleaning trials have also found the incorporation of Supratec<sup>+</sup> to offer further maintenance benefits when compared against competing safety floors.



Research carried out by Cleaning Research International found that Polysafe products with Supratec<sup>+</sup> outperform competitors in terms of cleanability and colour retention, *CLEANING RESEARCH international* — important issues for specifiers and end users as well as those undertaking facilities management and routine maintenance procedures.

Polysafe Standard and Supratec<sup>+</sup> products - Polysafe Corona and Polysafe Design were installed alongside competing safety floors with similar slip resistance

performance characteristics into a doorway area of a busy school corridor. This area is typically subjected to regular footfall at various periods throughout the day where users move regularly between rooms and where no barrier matting means the floor is exposed to walked-in dirt.

**The results:** *The testing involved monitoring the in-use performance of each flooring sample over a number of months and cleaning the floor through damp mopping with a neutral detergent at set periods. Values were taken in relation to cleanability, change in appearance as well as slip resistance readings when compared to a control sample.*

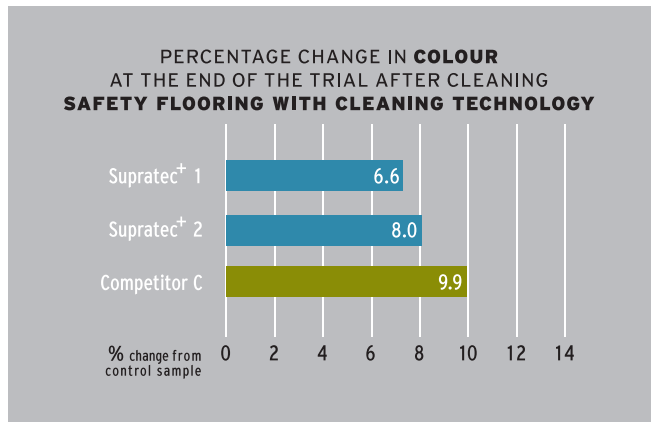
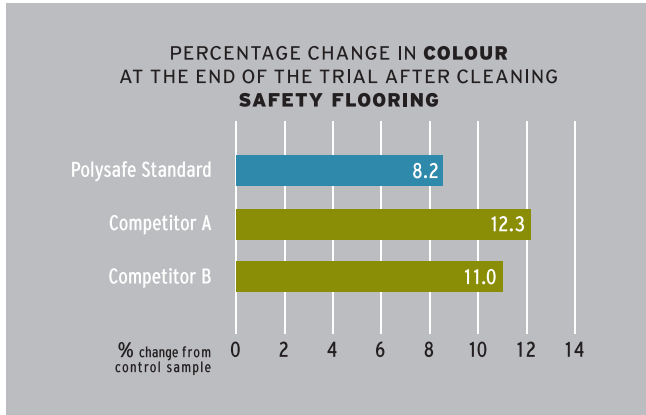
**APPEARANCE RETENTION**

Results show that both Supratec<sup>+</sup> products and also Polysafe Standard have the lowest percentage of colour change after a series of maintenance procedures

RANK TABLE	
1	Supratec <sup>+</sup> 1
2	Supratec <sup>+</sup> 2
3	Polysafe Standard
4	Competitor C
5	Competitor B
6	Competitor A

Response to cleaning and retention of colour. 1st is the best performing product, 6th is the worst.

using damp mopping, meaning a better response to cleaning than competitor products is achieved. This means that Supratec<sup>+</sup> and Polysafe Standard have a lower propensity for dirt retention and discolouring, hence a superior appearance and colour retention.



Competitor products responded least well to the cleaning regime with a significant change in visual appearance noted when compared to Polysafe products, with one competitor product in particular suffering the effects of a high amount of scuffing.

**APPEARANCE RETENTION RESULTS**



BEFORE CLEANING      **SUPRATEC<sup>+</sup> 1** AFTER CLEANING      CONTROL



BEFORE CLEANING      **POLYSAFE STANDARD** AFTER CLEANING      CONTROL



BEFORE CLEANING      **SUPRATEC<sup>+</sup> 2** AFTER CLEANING      CONTROL



BEFORE CLEANING      **COMPETITOR B** AFTER CLEANING      CONTROL



BEFORE CLEANING      **COMPETITOR C** AFTER CLEANING      CONTROL



BEFORE CLEANING      **COMPETITOR A** AFTER CLEANING      CONTROL



## SLIP RESISTANCE

Mean slip resistance values using the RRL Pendulum Test (fitted with Four-S/Slider 96 rubber and tested in accordance with BS 7976:2002) were taken at regular periods throughout the cleaning trial as well as at the start and finish of the test. By conclusion of the trial, all Polysafe products maintained slip resistance readings of greater than 36 in the wet, thereby adhering to Health and Safety Executive Guidance.

It is clear then, that in today's safety flooring market, Supratec<sup>+</sup> is a significant offering where the low maintenance properties allows colour choice to become an important specification criterion for a safety floor, without detriment to the key requisite of sustainable slip resistance. The availability of Supratec<sup>+</sup> in the Polysafe Corona range allows fresh and vibrant colourways to be selected, allied to colour co-ordination with Polyflor smooth vinyls across use areas. This is a complete world away from the archetypal safety floors of years gone by, where colour choice was more limited. This co-ordination facilitates the implementation of colour coded design schemes and wayfinding zones in specific areas of a building.

For detailed maintenance instructions for all Polysafe ranges, please refer to individual Floorcare sheets, either from [www.polyflor.com](http://www.polyflor.com) or contact Polyflor directly.

## REMEMBER A CLEAN FLOOR IS A SAFER FLOOR

That's why safety flooring is being used in the first place - specify a floor with the right maintenance regime for you and stick to it.

The use of polish is not a short cut to keeping safety flooring clean. Polish **should not be applied** to any Polysafe product as it impairs the slip resistance of the floor.



# Performance Properties

The foundation on which Polyflor's values are built is driven by our customer focus and our ability to work closely with all contractors, specifiers and end users to understand their requirements and provide the ideal flooring solution for any installation.

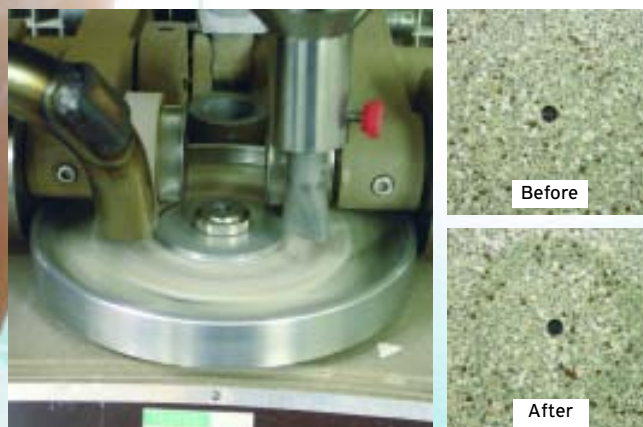
Not only is Polysafe a superb performer when it comes to slip resistance and cleanability, it also has many other performance attributes that make it the perfect safety floor for all concerned in the specification chain. This ranges from a wide scope of colour and decoration options to meet the visual stimulus of a designer, product flexibility and ease of welding to suit installation by contractors to the importance of low maintenance to the end user and specifier. Of course the requirement for a safety floor to offer slip resistant performance over a number of years is of utmost importance to all parties. All Polysafe ranges offer a sustainable slip resistant assurance that the floor does the job it has been designed for in areas with risks of water and contaminant spillages. All our product ranges are regularly subjected to the rigours of internal testing on our production line and in our laboratories to ensure they are fit to serve their purpose as sustainable safety floors. This is fully backed up by external testing carried out by independent bodies to relevant industry standards.

## DURABILITY

Polysafe products retain their performance characteristics and decoration, demonstrating outstanding durability and abrasion resistance, thereby adhering to the guidelines detailed in EN 13845 (the European Norm for Safety Flooring) that safety floors should suffer no ill effects when tested for abrasion over 50,000 cycles (EN 660-2). A stringent testing procedure is applied which involves constant cycles of abrasion under pressure with the continuous application of grit.

Below, in-house laboratory tests show Polysafe Corona, shade 5500 Barley being tested for abrasion.

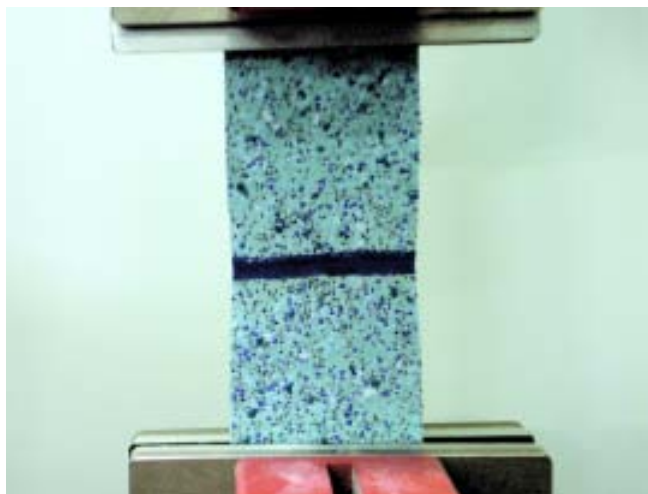
The images show the Polysafe Corona shade before and after abrasion testing. The decoration and aggregates remain as new, demonstrating the durability of the product. There is no apparent wear to the surface of the product. The visible mark is due to a reduction in gloss level.



## WELDING

Polysafe products can be easily heat welded using colour co-ordinated Polyflor welding rods. They can also be joined to adjacent Polyflor smooth vinyl floor coverings or Ejecta set-in skirting. The image opposite shows Polysafe Corona, welded with a standard Polyflor welding rod being tested on a Tensometer machine for strength of weld in our laboratories. We are confident that our Polysafe ranges are as forgiving to weld as standard Polyflor smooth floorcoverings, providing the superb non-porous finish and weld strength to prevent dirt ingress and achieve strict control in hygiene critical

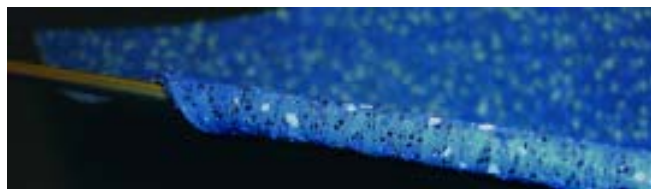
locations. For flooring used in continually wet areas, it is imperative that the strength of the weld is impervious to water and conforms to the EN 13553 standard for water tightness so that the product can achieve CE marking. Thus, Polysafe Hydro has external certification that the product meets this standard. Polysafe Hydro and all other Polysafe ranges also fully conform with the requirements of EN 13845 - the European standard relating to particle based slip resistant vinyl floorcoverings, whereby the strength of weld is a requirement of conformity.



**FLEXIBILITY**

The formulation of Polysafe products has been designed to allow greater flexibility, enabling trouble-free site-formed coving and installation around fixtures and fittings. The increased flexibility offered with today's Polysafe flooring means it is now easier to install in particularly tight spaces or difficult to lay areas such as drainage points.

Below, Polysafe Corona is shown, site-formed coved and welded to Polyclad Plus wall cladding.

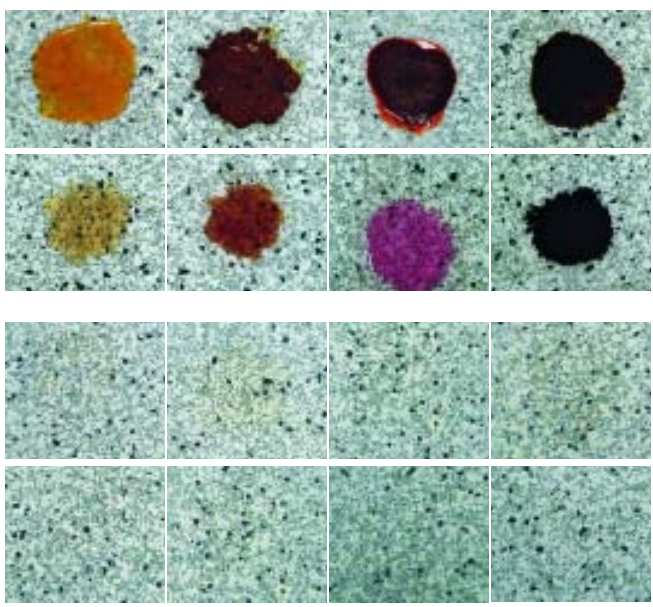


This picture shows Polysafe Corona with Supratec<sup>+</sup>; shade 5490 Seawater, tested around a 4mm mandrel. No whitening or cracking is observed. This test by far exceeds the requirements set in EN 13845 - the European Norm for Safety Flooring.

**STAIN RESISTANCE**

Given the hard-working nature in some of the areas where Polysafe is used, resistance to chemicals and staining can be an important consideration, be it paints, oils or more industrial chemicals. Complete chemical resistance charts for all Polysafe ranges are freely available from Polyflor showing the resistance to a range of specific chemicals by shade on each range and will prove helpful in selecting colours that are least affected by specific chemicals.

Polysafe vinyl floorcoverings are found to show an excellent resistance to mild and dilute acids, alkalis, soaps and detergents. Polysafe Corona with Supratec<sup>+</sup> is shown here during and after being stained with a number of household agents. Once the agents were removed after 24 hours only with water, in this case the benefit of the Supratec<sup>+</sup> treatment is clearly visible.



TYPE OF CHEMICAL	EFFECT	ACTION
<b>Aqueous Solutions</b>		
Mild acids and alkalis	No effect	
Strong alkalis	May cause discolouration in some shades	Dilute and remove
Strong acids	Prolonged contact can cause discolouration	Dilute and remove immediately
Dyes (indicators)	Contact can cause discolouration	Dilute and remove immediately
<b>Organic Liquids</b>		
Aldehydes Esters Halogenated hydrocarbons Ketones	Flooring attack occurs after several minutes	Wipe up immediately
Alcohols Ethers Glycols Hydrocarbons (aromatic and aliphatic) Petroleum spirit Vegetable oil	After several days, plasticiser extraction occurs, with associated problems of shrinkage and embrittlement	Wipe up immediately

For the more serious potential spillages on safety flooring such as petrol and strong acids, these are not harmful, provided any spillage is cleaned off immediately. The table above gives a very general guide, but best practice in this area is to ask Polyflor Customer Technical Services for advice on your specific project and the likely contaminants in the area.

#### LIGHT REFLECTANCE VALUES

All shades in the Polysafe portfolio have appropriate light reflectance values, available directly from Polyflor. In line with Part M of the Building Regulations for new buildings and allied to the Disability Discrimination Act 1995, there should be a visual contrast between the floor and wall, in terms of a measurable difference in light reflectance values recorded for floor and wall surfaces. Contact the Customer Technical Support Team for more information.

#### ANTIMICROBIAL PERFORMANCE



All Polysafe ranges contain antimicrobial agents. This is especially important given that safety flooring is often installed in wet areas that are both warm and trafficked by bare feet.

In the healthcare environment, where the issue of hygiene continues to make headlines in an age of MRSA and Hospital acquired infections, all Polysafe products have been independently tested and results demonstrate that all ranges inhibit the growth of MRSA on the flooring. A key issue following on from this is that an effective cleaning regime is the most important defence against infection and the floor inhibiting infection alone should not take the place of regular maintenance.

It is always prudent to obtain maintenance instructions for the specified floorcovering from your chosen flooring manufacturer. Complete cleaning and maintenance instructions can be found for each Polysafe range on specific floorcare sheets, available to download online or directly from Polyflor.

#### LOW VOLATILE ORGANIC COMPOUNDS (VOCs)

In order to contribute to a healthier environment with the reduction of emissions into the



atmosphere, Polysafe ranges have independent certification classifying them as Low VOC products. Tested to the AgBB test (Chamber test), the various VOC emissions are weighted according to the level of toxicity. The total VOCs emitted from Polysafe flooring falls well within set VOC limits, receiving results below the limit permitted.





**4 STEPS TO SAFETY**

- 1**  
36+ RRL  
Pendulum Wet Test
- 2**  
Surface Roughness  
 $R_z \geq 20\mu\text{m}$
- 3**  
Proven Cleanability
- 4**  
Sustainable Slip  
Resistance

**HSE COMPLIANT**



# Slip Resistance

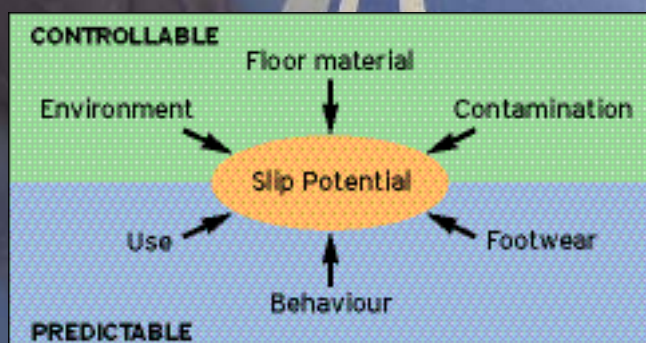
Slip resistance can be a confusing area for specifier and client alike. On one hand there is a requirement to specify flooring that is safe and fit for use, against a background of increasing awareness and litigation in the case of slips and trips. On the other hand, there is a plethora of test methods to assess the slipperiness 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.

**REMEMBER - over specifying on slip resistance does not necessarily give the safest floor.**

When carrying out initial risk assessments to determine the factors that could cause slip risks and implementing pre-emptive measures to minimise these risks, the specification of appropriate flooring should not be seen as the sole, one dimensional solution. The Health and Safety Executive (HSE) points to other factors having an impact on the risk of slipping - these include: the type of footwear used, drainage and expected floor contaminants, likely cleaning regimes as well as the different types of use the floor is subjected to by pedestrians, including individual gaits and human behaviour when walking.



The HSE Slip potential model

## SLIPS AND TRIPS

According to HSE research:

- Slips and trips are the single most common cause of major injuries in the United Kingdom workplace, accounting for 1 in 3 major injuries per annum (37% of all occupational injury accidents)
- Over 8500 major injuries are suffered each year at a cost to the economy of £750 million each year
- A cost of £512 million is felt by employers in lost production and other costs each year.

More information on HSE's ongoing campaign to reduce the number of slips and trips can be viewed on [www.hse.gov.uk/slips](http://www.hse.gov.uk/slips).

### SLIP RESISTANCE TEST METHODS

Polyflor tests Polysafe products 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 slipperiness.

### RRL PENDULUM CO-EFFICIENT OF FRICTION 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 opposite page, top left) to simulate a foot slipping on a wet floor. A standardised rubber soiling 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 on Polysafe 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 risk.



All Polysafe products achieve 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.

PENDULUM TEST VALUE (WET TEST USING 4S RUBBER/SLIDER 96)	SLIP RISK POTENTIAL
0 - 24	HIGH
25 - 35	MODERATE
36 +	LOW

For floorcoverings in continually wet areas such as walk-in showers, a softer TRL (Slider 55) rubber slider is used on the Pendulum foot (UK Slip Resistance Group Guidelines 2005) in order to simulate the act of a bare foot or a user with soft soled footwear slipping on a floor. The same requirement of meeting 36 or above is needed to give a low slip risk classification. Our wet room product adheres to these guidelines - Polysafe Hydro obtains results of 36+ using TRL Rubber (Slider 55).

### SURFACE MICROROUGHNESS

This test is also favoured by the HSE to be used on-site in conjunction with the Pendulum test and involves measuring the total surface microroughness of the flooring with a surface roughness meter. 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.

All Polysafe products exceed  $Rz\ 20\mu m$ , and in accordance with HSE Guidelines are classed as products with low slip potential in water-wet pedestrian areas – see table below. Polysafe Ultima has a typical result of  $Rz\ \geq 70\mu m$  and also has a Pendulum wet test result of 40+ (4S Rubber/Slider 96).

Rz SURFACE ROUGHNESS	SLIP POTENTIAL CLASSIFICATION
Below $10\mu m$	High Slip Potential
10- $20\mu m$	Moderate Slip Potential
$20+\mu m$	Low Slip Potential



In order to cope with different contaminant spillages of various process materials, the surface roughness of the flooring must be sufficient in order to penetrate the squeeze films created when there is a presence of wet contaminants between shoe sole and the floor that prevents solid-to-solid contact. The surface roughness the floor requires is governed by the viscosity level of liquid contaminants in the application area.

Note that in the materials listed below, margarine for example, the minimum floor roughness relates more to areas where this material is an intrinsic part of the environment, such as a margarine processing unit, as opposed to minor use of spreading margarine in sandwiches in a café for instance.

MINIMUM Rz ROUGHNESS LEVELS		
Contaminant Viscosity	Contaminant	Minimum Rz Floor Roughness
<1	Clean water, Coffee, Soft Drinks	$20\mu m$
1 - 5	Milk, Soap Solution	$45\mu m$
5 - 30	Cooking Stock	$60\mu m$
30 - 50	Motor Oil, Olive Oil	$70\mu m$
>50	Gear Oil, Margarine	Above $70\mu m$

## THE RAMP TEST (DIN 51130 & AS/NZ 4586)



HEALTH & SAFETY LABORATORY, SCIENCE PHOTO LIBRARY

This test involves testing a shod foot person 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 as shown below. This test has been commonly used in Europe, especially in the hard flooring sector. Whilst Polyflor quotes results of this test to AS/NZS 4586 on all products (see page 38), 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 most slipperiness. This allows a hole for manufacturers to crawl through where 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 could be applied to pass the Ramp test but the slipperiness will normally change significantly on installation and would soon wear off in use after maintenance regimes have been applied.

### DIN 51130 'R VALUE' SLIPPERINESS CLASSIFICATION REGIME

Classification	R9	R10	R11	R12	R13
Slip angle	6 - 10°	10 - 19°	19 - 27°	27 - 35°	35° +

### BAREFOOT RAMP TEST (DIN 51097)

This test relates specifically to the performance of flooring in barefoot and continually wet conditions

using a barefoot operator with soap solution as contaminant. Showers, swimming pools and hydrotherapy areas are typical areas for which this test may be requested. Given the nature of traffic in these areas and the use of bare feet, the issue of wear over the life of the floor does not cause the same issues as with the shod Ramp test. However, the HSE also has reservations about both Ramp tests as neither use contaminants that are representative of those commonly found in workplaces.

### DIN 51097 'R-VALUE' SLIPPERINESS CLASSIFICATION

Classification	Class A (barefoot walkways, mainly dry)	Class B (showers, pool surrounds)	Class C (steps into water, walk through pools etc)
Slip angle	12 - 17°	18 - 23°	24+°

Polysafe Hydro achieves a B rating, suitable for showers and pool surrounds etc.

The UK Slip Resistance Group (UKSRG) also finds that the Ramp test does not correlate at all with the Pendulum test because of the difference in type of contaminants used and the more industrial type footwear used by the operator in the Ramp test. Therefore, the UKSRG has developed an alternative Ramp test using water as the contaminant. The operator is either barefoot or wears footwear with 4S/Slider 96 rubber soles to test both profiled and non-profiled safety surfaces. However, this test is still not able to be replicated on-site and thus suffers from the same durability issues, so should not be used solely as a basis for specification.

### COMPLEMENTARY TEST METHODS

Other methods of measuring the slip resistance of floors are available, however these are only seen as being complementary tools and should not be used as a basis for floor surface specification, modification and legal proceedings, over and above the HSE recommended Pendulum test and surface roughness measurements.

### 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](http://www.hse.gov.uk/slips).

### ROLLER-COASTER TEST - SLIP ALERT



This is a relatively new measurement tool that has been developed specifically to reproduce the characteristics of the hydrodynamic squeeze film that occurs under a pedestrian's heel when they slip, measuring the average slip resistance over the area tested. This involves a trolley rolling down a ramp and skidding across the floor surface. However, this test is in its infancy and with its limited experience, sole reliance to this test on manufacturers' product specifications should not be sought to qualify specification of floor surfaces.



### 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. This presentation is also available as an online CPD. Further details can be found by visiting [www.ribaonlinecpd.com](http://www.ribaonlinecpd.com).

### EN 13845:2005



This European Norm 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 Polysafe 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.

**ESb** - Polysafe Hydro achieves a rating of Enhanced Slip Barefoot.

### CE MARKING

From 2007, all flooring sold in Europe must have carried the CE mark and show results on two 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 safety flooring or slip resistant flooring specifically, you should look for an ES rating.

In addition, continually wet area safety floorings like Polysafe Hydro must conform to EN 13553 for water tightness, in order to achieve CE marking status.

### Points to consider:

- HSE recommends the Pendulum test in conjunction with surface microroughness meter for real life in-situ results
- All Polysafe products adhere to HSE Guidelines, achieving 36+ in the Pendulum wet test (Four S Rubber /Slider 96) with a surface roughness of  $R_z \geq 20\mu\text{m}$ .
- The slip resistance on all Polysafe ranges is assured for the guaranteed life of the product
- Other methods of measuring slip resistance are only complementary and should not be used as sole indicators for specification. For example, the Ramp test is an ex-factory test and cannot be replicated on-site
- RIBA Approved CPD seminar for the specification of safety vinyl floorcoverings is available directly from Polyflor representatives or online

### USEFUL REFERENCES FOR FURTHER READING

- 'Assessing the slip resistance of flooring' HSE Information Sheet, 2007
  - 'Taking Slips and Trips Seriously' Paul Beaumont, HSC
  - 'Slips and trips: The importance of floor cleaning' HSE Information Sheet - Slips and Trips 2
  - 'Slips and trips: Summary guidance for the catering industry' HSE Information Sheet - Catering Sheet No 6
  - 'Preventing slips in the food and drink industries - technical update on floor specifications' HSE Information Sheet - Food Sheet No 22
  - 'Preventing slips and trips in kitchens and food service' HSE Information Sheet - Catering Sheet No 6 (revised)
  - 'Preventing slip and trip incidents in the education sector' HSE Information Sheet - Education Sheet No 2 (revised)
  - 'Slips and trips in the health services' HSE Information Sheet - Health Services Sheet No 2
  - UK Slip Resistance Group (UKSRG) Guidelines, 2005
  - Health Technical Memorandum 61 : Flooring - Department of Health
- All HSE Guidance is available on: [www.hse.gov.uk/slips/information.htm](http://www.hse.gov.uk/slips/information.htm)

# Recommended finishes

34

There are no short cuts to optimum performance with the installation of any flooring. That is why an overview should be taken of each project so that the finishing details are considered right from the start of the project. It also means that all parties are aware of their individual areas of responsibility.

There is no question that the final details contribute so much to an impressive finish for the floor. These include relatively minor details such as awkward corners, internal or external mitres, the junction where different floorcoverings meet and finishing details around drains and other accessories. They make up only a small proportion of the total floor, yet they often make up most of an architect's snag list.

A Polyflor installation must focus on these important details and also take into account all aspects of the location. We believe that the floor must not only look good, but also perform well, so that it is impermeable, hygienic and safe.

## **DRAINAGE**

The location of drains is important. As far as possible, they should be away from sources of vibration (to reduce movement) and from beams, columns and walls (to make leak detection easier). Obviously, they should be close to the main spillage sources, when direct outlets from spillage sources are not possible.

The floor gradient into the drain depends on the process, traffic volume and the surface texture of the floorcovering. The drains used should be built to permit examination, cleaning and repair without these operations causing damage to the floor.



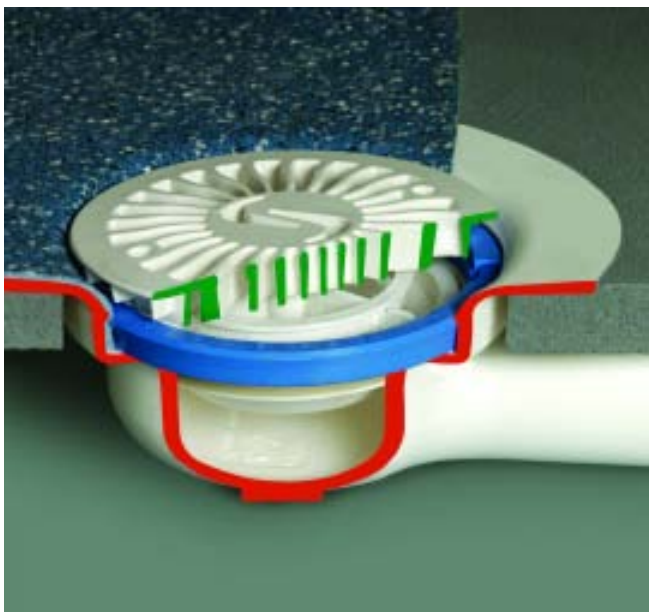
*Stainless steel drain prior to fitting vinyl clamping ring*

## **SHOWER DRAINS**

Only drains which have been specifically designed for use with sheet vinyl floorings should be considered. Most of these drains have clamping rings, which ensure the watertight security which is essential where hygiene and safety are of primary importance.

These clamping rings ensure that the Polysafe floorcovering is held securely in position and they prevent the ingress of water that could adversely affect the adhesion at this critical point.





*Drain with clamping ring in place.*

### **DRAINAGE CHANNELS AND GULLEYS**

Again, only drainage channels and gulleys which incorporate vinyl clamping and locking systems into their design should be considered.

### **CONSTRUCTION JOINT COVERS**

Correct treatment at expansion joints is also essential if the floor is going to last and perform in a safe and hygienic manner. We recommend that expansion joints are covered using either a PVC expansion joint cover, or a cover with a PVC insert, so that the flooring can be thermally welded to the cover (see below).

On no account must the Polysafe be taken straight over the expansion joint. This will lead to failure.



*Expansion joint cover*

### **EDGE TRIMS**

In many of the areas where Polysafe is installed, other types of floorcovering will also be used. The junction between the Polysafe flooring and these other types of floorcovering is a potential weak point, if not treated properly. Correct installation minimises problems such as water leakage and trip hazard.

### **POLYSAFE WITH CERAMIC OR QUARRY FLOOR TILES**

In installations where the edge of the vinyl comes into contact with ceramic or quarry tiles, it is important that a watertight joint is achieved at the junction. Aluminium edge trims with PVC inserts are ideal for this purpose. They facilitate installation and the PVC insert allows for a welded joint between the edge trim and the Polysafe floorcovering.

### **POLYSAFE WITH CARPET**

It is important that the junction between Polysafe and carpet is clearly visible and that any trip hazard is minimised by using edging strips. A variety of edging strips are available for this junction. The relevant manufacturers can supply further advice on installation and use of these types of trims.

### **BEVELLED AND DIMINISHING STRIPS**

Bevelled or diminishing strips should be used at all exposed edges of Polysafe vinyl floorings to minimise trip hazards.

The bevelled strip should be butted tightly to the exposed edge of the Polysafe vinyl flooring. The bevelled strip should be fixed using a contact adhesive and the joint may be thermally welded.

### **ACCESS AND MANHOLE COVERS**

It is important that access covers are used which facilitate either the welding of the Polysafe vinyl flooring to the cover and frame or where the Polysafe vinyl flooring can be clamped into place. Both these solutions result in a watertight, hygienic and safe joint.

### **SKIRTINGS AND OTHER FINISHES**

Polyflor supplies a wide range of PVC profiles which are ideal for use with the Polysafe range of products. In most installations, we would recommend that the Polysafe vinyl flooring is either site-covered up the wall,

or a “set in” coved skirting is used which can be welded to the Polysafe vinyl flooring.

#### SITE COVING

For the junction between site-covered Polysafe vinyl flooring and ceramic wall tiles, Polyflor Ejecta CT strip provides the ideal solution.

The flexible section is designed to accept ceramic wall tiles on one side and the various gauges of Polysafe on the other.

#### SET-IN COVED SKIRTINGS

Where it is impractical or where it is not cost effective to use the site-coved method of installation, the Polyflor Ejecta set-in skirting is a viable alternative. Very similar to the sit-on type skirting in appearance, the set in skirting has a 50mm toe which is adhered to the subfloor and allows the main field of sheet vinyl to be welded to it.

#### SIT-ON SKIRTINGS

Sit-on skirting generally tend only to be used in conjunction with tiled floors to provide a finish around the perimeter of the room. The sit-on skirting is adhered to the walls and the toe of the skirting sits on top of the floor; it is not welded. If requested, suitable mastic sealant can be used beneath the toe of the skirting.

#### MASTIC SEALANT FINISH

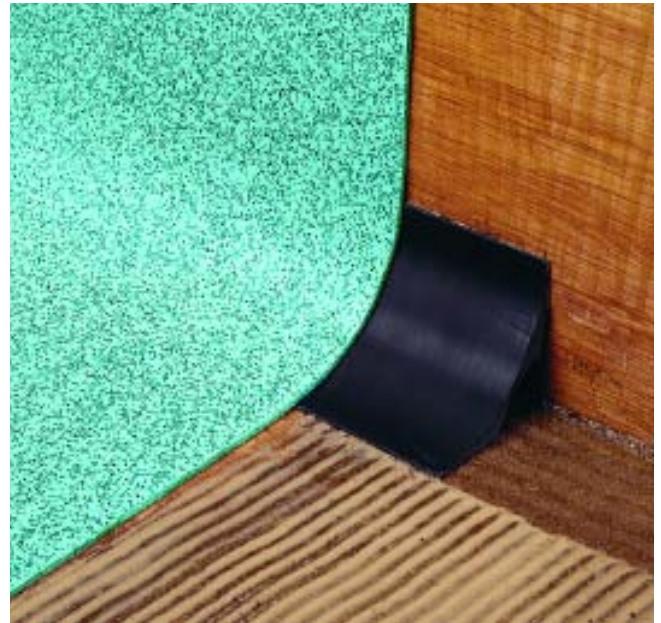
When specified, suitable silicon mastics can be used as a finish around the perimeter of a room. This is provided a water tight finish is not required and all parties are in agreement as to this type of finish.

#### PROTECTION FROM RADIATED HEAT SOURCES

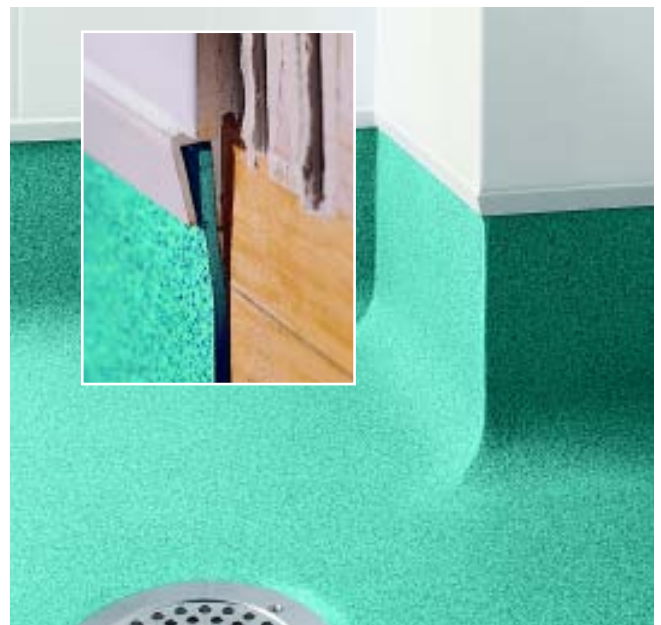
The Polysafe range of floorcoverings is often used in situations where excessive heat causes problems with the floorcovering and the adhesive. It is impractical to give specific details, as equipment such as ovens and kilns vary in design and height above the flooring material.

Where the conditions may cause a problem, we would recommend the use of metal oven trays that deflect the heat away from the floor, and an adhesive suitable for these conditions, such as an epoxy or polyurethane. If you are unsure, we recommend that you discuss the application with our Customer Technical Services Team.

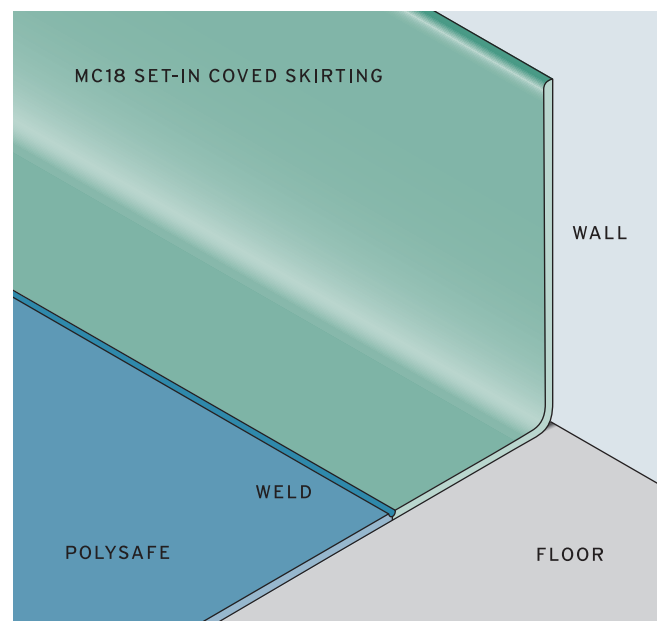
Full installation instructions for Polysafe products can be found in the Polyflor Technical Manual - also available online at [www.polyflor.com](http://www.polyflor.com).



*Polyflor CF PVC Cove Former*



*A typical coved skirting, inset shows Polyflor Ejecta CT strip*



*Set-in Coved Skirting*

**Q. Does Polyflor supply wall cladding and can this be joined to Polysafe material?**

**A.** Yes, Polyflor can supply the whole package. Our Polyclad PU and Polyclad Plus PU wall coverings can be supplied and used in conjunction with Polysafe vinyl floorcoverings and welded together at the seams to create an impermeable surface without dirt, water or bacteria ingress. Floor finishes from our Polyflor Ejecta range can also be used to create the perfect watertight finish, for example a cove former to enable Polysafe material to be flexibly fitted from the floor up to the wall through site-formed coving. A complete floor to wall solution...

**Q. Can Polysafe be laid onto foam to create increased acoustic performance?**

**A.** Yes, increasingly in schools and social housing projects, the issues of underfoot safety and acoustic performance are becoming intertwined in an endeavour to comply with Part E of the UK Building Regulations (2003 Edition). The Polyflor solution to this is to combine safety flooring with use of our closed cell Acoustifoam product. This is a 2mm thick layer of sheet foam laid on the subfloor first, with Polysafe or alternative Polyflor smooth vinyls laid over the top of the Acoustifoam. This combination in no way impairs the performance of the safety flooring and will provide an impact sound reduction level of over 18dB in acoustic performance when tested to EN ISO 140-8. This exceeds the requirements set down in the UK Building Regulations.

This acoustic performance can also be achieved on a safety floor by specifying Polysafe Wood FX Acoustic, complete with an integrated foam backed layer that is built into the product and gives an impact sound reduction level of 19dB and above.

**Q. What is the best way to clean your Polysafe safety flooring?**

**A.** All our Polysafe ranges require a straightforward maintenance regime. Firstly, sweep, mop sweep or dry vacuum the floor to remove loose dust, grit and debris. Next, apply a solution of neutral or alkaline cleanser to the floor diluted to the manufacturer's instructions, with enough time given for the solution to react with the soiling. The floor should then be machine scrubbed using a 165 rpm rotary machine fitted with a rotary scrubbing brush, or if necessary, a scrubbing pad, followed by the slurry being picked up with a wet vacuum. For areas where no suitable scrubbing machine is available, a deck scrubber should be used in conjunction with a wet vacuum or mop and bucket system. Where a mop and bucket system is used, it would be pertinent to use a separate bucket to wring the mop out and hold the dirty water, thereby increasing the dirt removal. The floor should then be rinsed thoroughly with clean, warm water and picked up with a wet vacuum and left to dry thoroughly. It is important that those responsible for floor maintenance leave the floor to dry completely before pedestrians are allowed access. In areas where this is not possible, suitable barriers should be used to tell people that the floor is still wet and if possible advise them to make alternative bypass routes.

For areas where there are instances of water-based spillages, an effective method of removing these contaminants can involve cleaning spills up immediately as they happen. This 'clean as you go' policy avoids spreading contamination around the floor as spillages are taken care of immediately. This allows contamination to be controlled as these spot cleanings are carried out at times separate to the whole floor area being cleaned. For water spillages, users can undertake spot mopping or cleaning, using a paper towel or similar to remove small areas

of contamination from the floor. For greasy and oily spills, a neutral detergent, diluted to the manufacturer's instruction should be used to spot mop the contaminant. Stubborn black marks can be removed by using the centre disc of a scrubbing pad and a small amount of undiluted alkaline cleanser. The disc should be placed under the sole of the shoe and rubbed to give greater pressure to the surface.

For SUPRATEC<sup>+</sup> products, all the traditional methods of maintenance such as scrubbing machines can be used. However, a clean microfibre mop can also be used to pick up the diluted solution of detergent once it has reacted to the soiling, using a continuous side-to-side motion. Once the mop head becomes loaded, it will start streaking the floor. At this stage, the dirty mop head should be replaced with a clean mop head. The cycle should then be repeated until the whole floor is completed.

For POLYSAFE HYDRO, our profiled emboss product for continually wet and barefoot areas, the scrubbing pad on the rotary machine should be replaced with a rotary scrubbing brush, bristle brush or deck scrubber. Alternatively, a cylindrical type scrubbing machine should be used. All spot cleaning for this product should involve the use of a deck scrubber.

The frequency for each type of cleaning operation is dependent upon the type and intensity of traffic. However, if cleaning procedures are carried out daily, it may be possible for the maintenance regime to be undertaken last thing at night, so the flooring is dry for the start of the next working shift.

Full maintenance information for each Polysafe range and recommended maintenance products are available online at [www.polyflor.com](http://www.polyflor.com) or via Polyflor Customer Technical Services.

**Q. Can I apply polish to your safety flooring?**

**A.** Categorically, any polish or floor maintainer should not be applied to any Polysafe flooring as this may impair the main performance attribute of the floor - its slip resistance. For further advice please contact our Customer Technical Services.

**Q. Can I use under-floor heating with Polysafe flooring?**

**A.** Yes, all Polysafe vinyl product ranges can be installed over underfloor heating, providing that the service operating temperature does not exceed 27°C (80° F) and the heating system is switched off during the installation period from 48 hours prior to installation until 48 hours afterwards. The adhesive used should be capable of withstanding temperatures up to 27°C.

**Q. How dry does a subfloor need to be before Polysafe can be laid?**

**A.** Polysafe flooring should only be laid on subfloors where the moisture level does not exceed 75% RH in accordance with BS 8203 and which do not suffer from rising damp or hydrostatic pressure.

The Hygrometer is the only method of test acceptable as detailed in BS 8203 and only readings taken over at least a 72 hour period should be considered to represent the moisture content of the subfloor. Subfloors with a relative humidity in excess of 75% will invariably cause failure of the bond between the substrate and floorcovering. Polyflor does not condone the practice of laying safety flooring direct to subfloors with moisture content readings above 75% and accepts no responsibility for non-performance of Polysafe products in such instances. For further advice on methods to implement when the moisture of a subfloor exceeds 75%, please contact Polyflor Customer Technical Services.

# Specifications

	GAUGE	ROLL SIZE	WEIGHT	GENERAL PERFORMANCE	REACTION TO FIRE	ENHANCED SLIP**	ACOUSTIC IMPACT SOUND REDUCTION
Corona	2.0mm	2m x 20m = 40m <sup>2</sup>	2400g/m <sup>2</sup>	EN 13845 ASTM F1303 Agrément – G5ws	EN 13501-1 Class Bfl-S1 EN ISO 9239-1 ≥8kw/m <sup>2</sup> EN ISO 11925-2 Pass ASTM E648 Class 1	EN 13845 ESf RRL Pendulum Test ≥36 (wet test - 4S Rubber /Slider 96) Surface roughness Rz ≥20µm AS/NZS 4586 R10	
Astral	2.0mm	2m x 20m = 40m <sup>2</sup>	2450g/m <sup>2</sup>	EN 13845 ASTM F1303 Agrément – G5ws	EN 13501-1 Class Bfl-S1 EN ISO 9239-1 ≥8kw/m <sup>2</sup> EN ISO 11925-2 Pass ASTM E648 Class 1	EN 13845 ESf RRL Pendulum Test ≥36 (wet test - 4S Rubber /Slider 96) Surface roughness Rz ≥20µm AS/NZS 4586 R10	
Wood FX	2.0mm	2m x 20m = 40m <sup>2</sup>	3000g/m <sup>2</sup>	EN 13845 ASTM F1303 Agrément – under application	EN 13501-1 Class Bfl-S1 EN ISO 9239-1 ≥8kw/m <sup>2</sup> EN ISO 11925-2 Pass ASTM E648 Class 1	EN 13845 ESf RRL Pendulum Test ≥36 (wet test - 4S Rubber /Slider 96) Surface roughness Rz ≥20µm AS/NZS 4586 R10	
Mosaic	2.0mm	2m x 20m = 40m <sup>2</sup>	2400g/m <sup>2</sup>	EN 13845 ASTM F1303 Agrément – under application	EN 13501-1 Class Bfl-S1 EN ISO 9239-1 ≥8kw/m <sup>2</sup> EN ISO 11925-2 Pass ASTM E648 Class 1	EN 13845 ESf RRL Pendulum Test ≥36 (wet test - 4S Rubber /Slider 96) Surface roughness Rz ≥20µm AS/NZS 4586 R10	
Vogue Ultra	2.0mm	2m x 20m = 40m <sup>2</sup>	2400g/m <sup>2</sup>	EN 13845 ASTM F1303 Agrément – G5ws	EN 13501-1 Class Bfl-S1 EN ISO 9239-1 ≥8kw/m <sup>2</sup> EN ISO 11925-2 Pass ASTM E648 Class 1	EN 13845 ESf RRL Pendulum Test ≥36 (wet test - 4S Rubber /Slider 96) Surface roughness Rz ≥20µm AS/NZS 4586 R10	
Strata	2.0mm	2m x 20m = 40m <sup>2</sup>	2430g/m <sup>2</sup>	EN 13845 ASTM F1303 Agrément – G5ws	EN 13501-1 Class Bfl-S1 EN ISO 9239-1 ≥8kw/m <sup>2</sup> EN ISO 11925-2 Pass ASTM E648 Class 1	EN 13845 ESf RRL Pendulum Test ≥36 (wet test - 4S Rubber /Slider 96) Surface roughness Rz ≥20µm AS/NZS 4586 R10	
Standard	2.0mm	2m x 20m = 40m <sup>2</sup>	2430g/m <sup>2</sup>	EN 13845 ASTM F1303 Agrément – G5ws	EN 13501-1 Class Bfl-S1 EN ISO 9239-1 ≥8kw/m <sup>2</sup> EN ISO 11925-2 Pass ASTM E648 Class 1	EN 13845 ESf RRL Pendulum Test ≥36 (wet test - 4S Rubber /Slider 96) Surface roughness Rz ≥20µm AS/NZS 4586 R10	
	2.5mm	2m x 20m = 40m <sup>2</sup>	3100g/m <sup>2</sup>				
	3.5mm	2m x 15m = 30m <sup>2</sup>	4400g/m <sup>2</sup>				
Hydro*	2.0mm	2m x 20m = 40m <sup>2</sup>	2450g/m <sup>2</sup>	EN 13845 ASTM F1303 Agrément – G5ws	EN 13501-1 Class Bfl-S1 EN ISO 9239-1 ≥8kw/m <sup>2</sup> EN ISO 11925-2 Pass ASTM E648 Class 1	EN 13845 ESb RRL Pendulum Test ≥36 (wet test - TRL Rubber) Surface roughness Rz ≥20µm AS/NZS 4586 Part C Class B	
Ultima	2.5mm	2m x 20m = 40m <sup>2</sup>	3000g/m <sup>2</sup>	EN 13845 ASTM F1303 Agrément – G5ws	EN 13501-1 Class Bfl-S1 EN ISO 9239-1 ≥8kw/m <sup>2</sup> EN ISO 11925-2 Pass ASTM E648 Class 1	EN 13845 ESf RRL Pendulum Test ≥40 (wet test - 4S Rubber /Slider 96) Surface roughness Rz ≥70µm AS/NZS 4586 R11	
Wood FX Acoustic	3.7mm	2m x 20m = 40m <sup>2</sup>	3000g/m <sup>2</sup>	EN 651 Agrément – under application	EN 13501-1 Class CfI-S1	EN 13845 ESf RRL Pendulum Test ≥36 (wet test - 4S Rubber /Slider 96) Surface roughness Rz ≥20µm AS/NZS 4586 R10	EN ISO 140-8 ≥19dB



For information regarding handling and installation, adhesives, maintenance, applications and chemical resistance, consult Polyflor.

\* WATER TIGHTNESS EN 13553 Annex A

\*\* Sustainable wet slip resistance. The slip resistance across all Polysafe products is assured throughout the guaranteed life of the product, with strict adherence to HSE Guidelines.

For further clarification regarding slip resistance, consult Polyflor.

◆ Polysafe flooring products have been independently tested and results demonstrate that they inhibit the growth of MRSA on the flooring. An effective cleaning regime is however, the most important defence against infection.

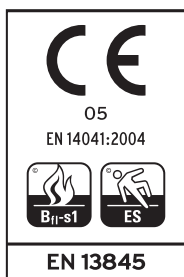
The data presented is correct at the time of printing.

For latest information, please check our web site at [www.polyflor.com](http://www.polyflor.com)



Vinyl safety flooring has a generic BRE A+/A Rating in the Green Guide to Specification, for contract applications. See pages 16-17 for details.

ABRASION RESISTANCE	HYGIENE	RESISTANCE TO CHEMICALS	VOC EMISSIONS	AGRÉMENT ASSURANCE	UNDERFOOT COMFORT	MAINTENANCE ENHANCEMENT	ELECTRICAL BEHAVIOUR	USE AREA CLASSIFICATION
EN 649 Group T EN 13845 50,000 cycles	Contains antimicrobial agents	Good resistance to dilute acids and alkalis	AgBB VOC test: Pass (Low Result)	Independently assessed by the BBA. With proper maintenance, product performance is assured for at least 10 years in recommended use areas		Enhanced with Supratec+ with polyurethane for even greater maintenance benefits	EN 1815 Pass	23,34,43
EN 649 Group T EN 13845 50,000 cycles	Contains antimicrobial agents	Good resistance to dilute acids and alkalis	AgBB VOC test: Pass (Low Result)	Independently assessed by the BBA. With proper maintenance, product performance is assured for at least 10 years in recommended use areas		Enhanced with Supratec+ with polyurethane for even greater maintenance benefits	EN 1815 Pass	23,34,43
EN 649 Group T EN 13845 50,000 cycles	Contains antimicrobial agents	Good resistance to dilute acids and alkalis	AgBB VOC test: Pass (Low Result)	Agrément – under application		Reinforced with polyurethane for improved cleaning and maintenance	EN 1815 Pass	23,34,43
EN 649 Group T EN 13845 50,000 cycles	Contains antimicrobial agents	Good resistance to dilute acids and alkalis	AgBB VOC test: Pass (Low Result)	Agrément – under application		Featuring a new, closed surface finish specially engineered to minimise soil uptake and maximise ease of cleaning	EN 1815 Pass	23,34,43
EN 649 Group T EN 13845 50,000 cycles	Contains antimicrobial agents	Good resistance to dilute acids and alkalis	AgBB VOC test: Pass (Low Result)	Independently assessed by the BBA. With proper maintenance, product performance is assured for at least 10 years in recommended use areas			EN 1815 Pass	23,34,43
EN 649 Group T EN 13845 50,000 cycles	Contains antimicrobial agents	Good resistance to dilute acids and alkalis	AgBB VOC test: Pass (Low Result)	Independently assessed by the BBA. With proper maintenance, product performance is assured for at least 10 years in recommended use areas			EN 1815 Pass	23,34,43
EN 649 Group T EN 13845 50,000 cycles	Contains antimicrobial agents	Good resistance to dilute acids and alkalis	AgBB VOC test: Pass (Low Result)	Independently assessed by the BBA. With proper maintenance, product performance is assured for at least 10 years in recommended use areas			EN 1815 Pass	23,34,43
EN 649 Group T EN 13845 50,000 cycles	Contains antimicrobial agents	Good resistance to dilute acids and alkalis	AgBB VOC test: Pass (Low Result)	Independently assessed by the BBA. With proper maintenance, product performance is assured for at least 10 years in recommended use areas			EN 1815 Pass	23,34,43
EN 649 Group T EN 13845 50,000 cycles	Contains antimicrobial agents	Good resistance to dilute acids and alkalis	AgBB VOC test: Pass (Low Result)	Independently assessed by the BBA. With proper maintenance, product performance is assured for at least 10 years in recommended use areas			EN 1815 Pass	23,34,43
EN 649 Group T EN 13845 50,000 cycles	Contains antimicrobial agents	Good resistance to dilute acids and alkalis	AgBB VOC test: Pass (Low Result)	Independently assessed by the BBA. With proper maintenance, product performance is assured for at least 10 years in recommended use areas			EN 1815 Pass	23,34,43
EN 649 Group T EN 13845 50,000 cycles	Contains antimicrobial agents	Good resistance to dilute acids and alkalis	AgBB VOC test: Pass (Low Result)	Independently assessed by the BBA. With proper maintenance, product performance is assured for at least 10 years in recommended use areas			EN 1815 Pass	23,34,43
EN 649 Group T EN 13845 50,000 cycles	Contains antimicrobial agents	Good resistance to dilute acids and alkalis	AgBB VOC test: Pass (Low Result)	Independently assessed by the BBA. With proper maintenance, product performance is assured for at least 10 years in recommended use areas			EN 1815 Pass	23,34,43
EN 649 Group T EN 13845 50,000 cycles	Contains antimicrobial agents	Good resistance to dilute acids and alkalis	AgBB VOC test: Pass (Low Result)	Independently assessed by the BBA. With proper maintenance, product performance is assured for at least 10 years in recommended use areas			EN 1815 Pass	23,34,43
EN 649 Group T EN 13845 50,000 cycles	Contains antimicrobial agents	Good resistance to dilute acids and alkalis	AgBB VOC test: Pass (Low Result)	Agrément – under application	EN 433 >0.4mm Pass Ergonomically designed for anti-fatigue benefits	Reinforced with polyurethane for improved cleaning and maintenance	EN 1815 Pass	23,34,42



**Industry Standards Glossary**

**EN 13845:2005** - The European Norm for polyvinyl chloride floorcoverings with particle based enhanced slip resistance. Used within CE Marking for safety floors.

**EN 649:1997** - The main standard relating to homogeneous and heterogeneous polyvinyl chloride floorcoverings. Used within CE Marking.

**EN 685:2005** - This relates to the classification of products in relation to the intensity of use, linking this with abrasion resistance and wearlayer thickness.

**EN 651** - Standard relating to polyvinyl chloride floorcoverings with foam layer.

**EN 13501-1:2002** - This relates to the classification of building products in terms of fire performance and reaction to fire tests and is an essential requirement of the European Construction Products Directive. This fire test is used within CE Marking.

**EN 13553:2002** - Standard relating to polyvinyl chloride floorcoverings for use in special wet areas, covering water tightness and strength of weld. Also used within CE Marking for continually wet area products.

FalckDesign AB  
Energigatan 9, SE-434 23 Kungsbacka,  
Sweden  
Tel: +46 (0) 300 15820  
E-mail: info@falckdesign.com

James Halstead Flooring NZ Ltd  
100 Plunket Avenue, Manukau, Auckland,  
2104 PO Box 98943, Manukau City,  
2241 New Zealand  
PH: 0800 425 783  
E-mail: sales@halstead.co.nz

objectflor Art und Design Belags GmbH  
Wankelstraße 50, 50996 Köln, Germany  
Tel: +49 (0) 2236 966 330  
E-mail: info@objectflor.de

Polyflor Australia Pty Ltd  
59-65 Wedgewood Road, Hallam,  
Vic 3803, Australia  
Tel: 1800 777 425  
E-mail: sales@polyflor.com.au

Polyflor Canada  
500 College Avenue West, Guelph,  
Ontario N1G 1T5, Canada  
Tel: +1 519 763 3088  
E-mail: acrawford@polyflor.ca

Polyflor Contract Ltd  
Office 12, Business centre "Strela",  
d. 113, liter B, LigoVsky pr.,  
St.Petersburg, Russia.  
Tel: +7 812 332 42 02  
E-mail: sales@polyflor.ru

Polyflor Hong Kong  
Room 2409, 24th Floor,  
New York Life Tower, Windsor House,  
311 Gloucester Road,  
Causeway Bay, Hong Kong  
Tel: +852 2865 0101  
E-mail: anthonylam@polyflorhk.com

Polyflor Ireland  
Unit 106, Millennium Trade Park,  
Ballycoolin, Blanchardstown, Dublin 11  
Tel: +353 (1) 864 9304  
E-mail: tmockler@polyflor.com

Polyflor Middle East  
Level 14, Musallah Towers, Bur Dubai,  
PO Box 71862, Dubai, UAE  
Tel: +971 4 397 2485  
E-mail: espm@eim.ae

Polyflor Nordic  
Kjelsåsveien 168 B, N-0884 Oslo, Norway  
Tel: +47 23 00 84 00  
E-mail: firmapost@polyflor.no

Polyflor Polska  
Ul Gronowa 22/506, Poznan 61-680,  
Poland  
Tel: +48 61 820 3155  
E-mail: polyflor@polyflor.com.pl

Poly Sales Africa (Pty.) Ltd  
PO Box 3967, Edenvale 1610,  
South Africa  
Tel: (27) 011 609-3500  
E-mail: info@polyflor.co.za

**WWW.POLYFLOR.COM**

Visit the Polyflor website for further  
details on worldwide distribution,  
as well as up-to-date product and  
technical information.



## Flooring Industry Awards

**2008**

**BEST RESILIENT FLOORING - POLYSAFE**

**2009**

**BEST SAFETY FLOORING - POLYSAFE**



**POLYFLOR™**  
COVERING THE WORLD

POLYFLOR LTD. PO BOX 3 RADCLIFFE NEW ROAD WHITEFIELD MANCHESTER M45 7NR UK  
TEL: +44 (0)161 767 1111 UK SALES DIRECT: +44 (0)161 767 1122 UK SAMPLE REQUESTS: +44 (0)161 767 2551  
UK FAX: +44 (0)161 767 1128 EXPORT FAX: +44 (0)161 767 1166  
E-MAIL: INFO@POLYFLOR.COM WEBSITE: WWW.POLYFLOR.COM

