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CASE STUDY
 REASONS FOR SPECIFICATION



Polysafe Ultima - heavy-duty safety flooring with enhanced slip resistance



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James Halstead
 FLOORING



The Ultimate Solution

“During the initial design concept, Polysafe Ultima was the clear flooring choice due to 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.”

Anita Cormac OBE

Executive Director, The Cooking School at Dean Clough.





POLYSAFE ULTIMA

Polysafe Ultima - the safety floor designed to suit specification into extremely demanding application areas, offering enhanced slip resistance throughout the guaranteed life of the product.

Where is it used?

Typically used in busy food preparation areas and commercial kitchens, Ultima is ideal in heavily trafficked areas, where high risks of oil and grease spillages demand a floor that performs day in, day out. In areas where a high number of meals are served each day and the floor is subjected to frenetic use, Ultima is ideal to give user confidence and minimise slip risk in these extremely tough conditions.

Polysafe Ultima is a top performer in many heavy-duty commercial areas because of its uniquely engineered surface, with an emboss that facilitates straightforward maintenance. This is combined with a high surface roughness, allowing slip resistance to be maintained in the face of high viscosity contaminants.

4 steps to safety

1. Ultima achieves a result of 40+ on the RRL Pendulum Test in wet conditions using Four S rubber/Slider 96, a Health and Safety Executive (HSE) recommended test for measuring a floor's slip resistance, in-situ.

2. Polysafe Ultima has a unique **Surface Roughness**, giving typical results of $Rz \geq 70\mu m$ and therefore suitable for areas encountering spillages such as olive oil and cooking stock.

Fully compliant with HSE Guidance, Ultima's Pendulum and Surface Roughness results classify the product as low slip potential. Independent test certificates are available from Polyflor on request.

3. Sustainable slip resistance - the enhanced level of slip resistance is governed by an increased level of aggregates applied within the product - this is from a concentrated amount of coloured quartz, aluminium oxide and silicon carbide, increasing the friction between the foot and floor.

Due to these aggregates being applied through the vinyl, this slip resistance is sustainable and can be maintained throughout the guaranteed life of the product, giving that added reassurance over a number of years.

It is always advisable to be wary of manufacturers claiming slip resistant performance solely to an R value on the Ramp Test (DIN 51130) and not Pendulum and Surface Roughness tests. The Ramp Test does not give a true reflection of in-situ performance as the procedure can only be undertaken ex-factory and cannot be replicated on-site.

4. Proven cleanability - Time and time again, Ultima installations have shown that the flooring in these testing environments can be cleaned without difficulty, using a recommended Polyflor maintenance regime involving a neutral detergent.



The Cooking School at Dean Clough

Based in Halifax's historic Dean Clough Mills, The Cooking School is the brainchild of Anita Cormac OBE, Executive Director and is managed by the Design Dimension Educational Trust - a charity renowned for its expertise in education and in particular its highly acclaimed *Focus on Food* Campaign. This campaign is the UK's foremost education outreach programme for cooking, raising the profile of cooking education to over 40,000 school children and 2,500 teachers each year via a nationwide fleet of mobile teaching classrooms. The Cooking School is an extension of the *Focus on Food* campaign open to teach adults, with all profits generated being ploughed back into the mobile teaching programme.

The Cooking School offers expert tuition to adults of all skill levels, for example the general public as well as would-be chefs, by offering a series of courses held in a professional kitchen environment. The School's Principal Tutor is Matthew Benson-Smith, an experienced Head Chef with over 20 years experience in top hotels, award winning restaurants and also at Chequers. Guest celebrity chefs also lead courses throughout the year. One such celebrity chef supporting the *Focus on Food* campaign is James Martin, who officially launched the state-of-the-art Cooking School to much acclaim in front of an enthralled media and public audience.

When safety flooring was required for this exciting concept, the project designers turned to Polyflor because of the Company's renowned experience of Polysafe installations within various commercial environments.

PROJECT:	Cooking School Kitchen, Storage & Food Preparation areas
LOCATION:	The Cooking School at Dean Clough, Halifax, West Yorkshire
FLOORING & WALLING SUPPLIED:	Polysafe Ultima - Aurora Grey 4290 Polyclad Plus PU - Summer Sky 2830
DATE:	September 2008
AREA:	Flooring 220m ² Walling 133m ²

Kitchen design and specification

Creating a modern, uplifting and healthy interior space that was in harmony with the individuals using the kitchen for learning was a key requirement for the design team. The design trend therefore had to be modern and tuned to create an aesthetically pleasing space to help nurture a learning experience in a relaxed and welcoming setting.

A holistic approach to design was undertaken, incorporating the inclusion of high end kitchen furniture and cooking equipment supplied from leading brands. A 21-station teaching area was created within the kitchen, the centrepiece being a circular shaped learning zone with a separate demonstration area for group tuition.

The stylistic nature of this learning environment had to be matched by a floor covering that could offer slip resistance for years to come in the presence of regular spillages, be durable for continuous footfall, be easy to clean as well as compatible with the chosen design scheme. The chosen flooring that gives a solution to all these requirements is Polysafe Ultima - a durable safety floor designed to provide enhanced slip resistance when there is the most testing of spillages in the cooking environment, such as olive oil, cooking stock and margarine.

Mood boards and colour palettes displaying floor finishes were drawn up by the designers and the Aurora Grey colour from the Polysafe Ultima range was the clear choice to fit the design scheme. This colour was specified to offer a visual contrast between the clean pastel lines of the work units and wall coverings, glass panel surrounds and the green hues used for the curved central learning pod.



Kitchen environment

The Cooking School's kitchen area houses a variety of modern cooking equipment geared towards multiple-use and prolonged periods of cooking throughout the day. With a number of dishes prepared at the same time by course participants and the regular use of cooking oils, this means a constant risk of spillage with plenty of footfall and movement over the floor. In these conditions, it's critical that the chosen flooring provides increased protection to ensure a low slip risk. Polysafe Ultima's unique surface roughness and enhanced slip resistant surface complemented by a straightforward maintenance regime, gives an added reassurance of underfoot safety to all working on the floor.

Environmental credentials

With the environmental impact of the specified flooring also a key consideration, Polysafe Ultima's top environmental profile of A+ from BRE Global (Certificate No: ENP 336) in major use areas within education helps the product to achieve an excellent Eco-Profile based on a building life of 60 years. This contributes to a healthy BREEAM score for the building. With Polysafe Ultima also being 100% recyclable and containing recycled material, this means the product is highly valued for its environmental performance by the design team and an important factor in specification.



Refer to BRE Global ratings on www.greenbooklive.com



The Ultimate Solution

“The floor is an important part of The Cooking School and has performed very well, bearing in mind the amount of punishment it takes during the cooking courses. You can literally feel the extra grip in the floor and it is reassuring that course participants can learn and cook in an environment where the flooring offers that vital safety underfoot.”

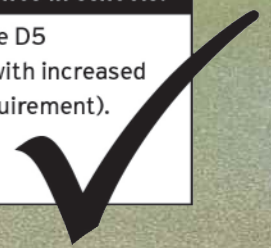
Matthew Benson-Smith,
Principal Tutor, The Cooking School at Dean Clough.



SSLD 2 - Floor finishes in schools:

Kitchen - Floor Type D5
(Wet area flooring with increased
heat resistance requirement).

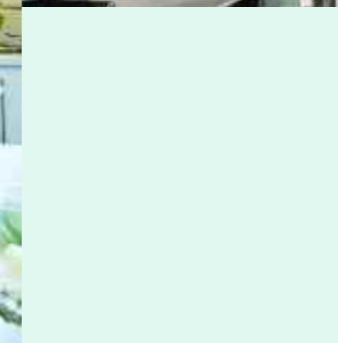
Polysafe Ultima



The Ultimate Solution

“The safety floor is very easy to maintain. I am impressed with how it cleans up, particularly with the spillages that can occur during the courses.”

Helen Fermoyle,
Cleaning Supervisor, The Cooking School at Dean Clough.



Maintenance

Cleaning is undertaken daily by cleaning staff at The Cooking School, using a mop and bucket system. Neutral detergent is used and diluted with water to the recommended levels. A mechanical scrubbing machine is also used periodically and the floor is steam cleaned occasionally for strict infection control.

No special maintenance regime is required for Polysafe Ultima, although as in The Cooking School, a dedicated cleaning regime needs to be place. For further cleaning guidance and recommended maintenance products, contact Polyflor's Customer Technical Services Team on +44(0)161 767 1912. Or visit www.polyflor.com to download maintenance sheets.

The wallcoverings

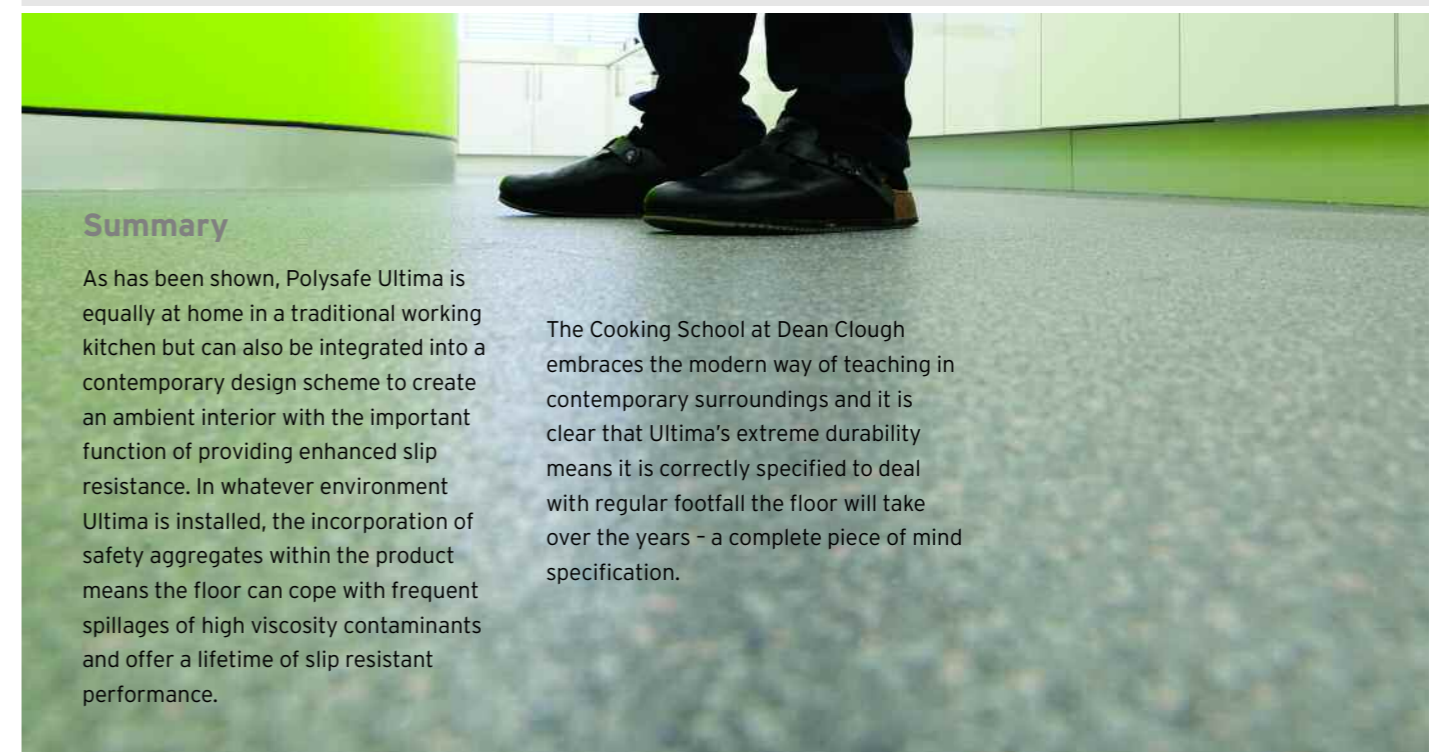
For a complete wall-to-floor solution, Polyclad Plus PU wall cladding is also installed in the school's interior and in adjacent food preparation and storage areas. Due to the strict requirement for hygienic surfaces in The Cooking School, the durable PVC wall cladding is an ideal choice for these type of areas. The school's cleaning staff can benefit from an excellent foundation for ongoing maintenance due to the incorporation of a polyurethane surface treatment on the product.



Slip resistance

Polysafe Ultima's sustainable slip resistance will help to provide underfoot safety to The Cooking School's users for years to come. Fully compliant with Health and Safety Executive (HSE) Guidelines, the product contains added slip resistant particles to achieve a Pendulum Test result in the wet of 40 and above. Dealing with spillages such as cooking stock and olive oil is an important requirement and Ultima's unique micro roughness, achieving 70+ microns, adheres to HSE's classification of low slip risk when such contaminants are regularly present.

These Pendulum and Surface Roughness tests are the only methods recommended by the HSE to determine the in-situ performance of flooring and Ultima's slip resistance is assured throughout the guaranteed life of the product, being tried and trusted to perform in such testing conditions.



Summary

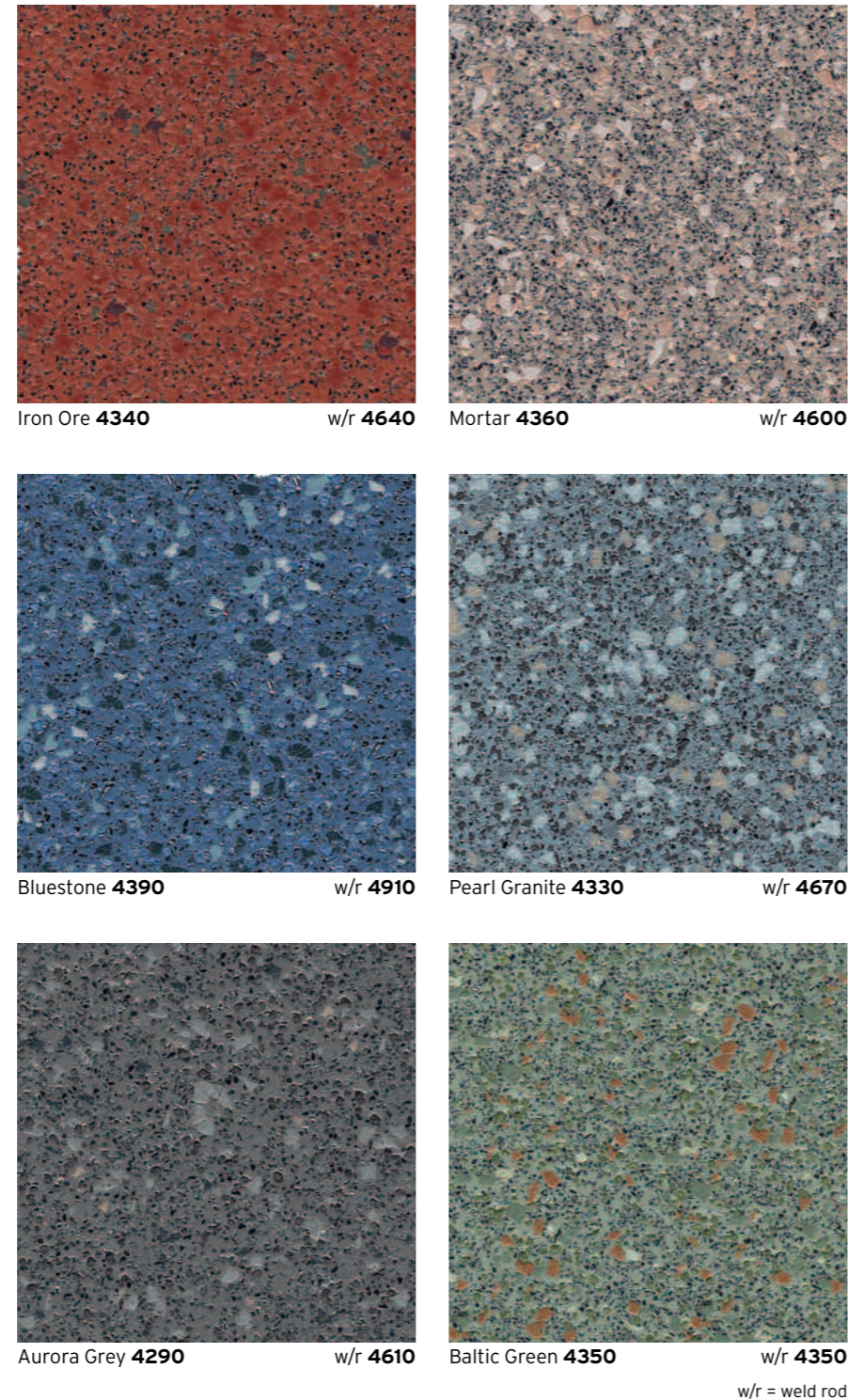
As has been shown, Polysafe Ultima is equally at home in a traditional working kitchen but can also be integrated into a contemporary design scheme to create an ambient interior with the important function of providing enhanced slip resistance. In whatever environment Ultima is installed, the incorporation of safety aggregates within the product means the floor can cope with frequent spillages of high viscosity contaminants and offer a lifetime of slip resistant performance.

The Cooking School at Dean Clough embraces the modern way of teaching in contemporary surroundings and it is clear that Ultima's extreme durability means it is correctly specified to deal with regular footfall the floor will take over the years - a complete piece of mind specification.

Why Ultima?

- BRE Global A+ Rated product (Certificate No: ENP 336) in major use areas such as education and healthcare
- Sustainable slip resistance ≥ 40 RRL Pendulum wet test (Four S rubber /Slider 96) assured throughout the guaranteed life of the product
- Surface roughness - typical result of over $Rz 70\mu m$ - to deal with oil and grease spillages
- Simple maintenance
- Flexible for ease of installation, coving and welding - can be seam-welded to achieve an impervious and hygienic finish
- 10 year assurance of product performance, independently assessed by the British Board of Agrément
- 100% recyclable and contains recycled material

The Colours



* Refer to BRE Global ratings on www.greenbooklive.com

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
- Standard specifications, layouts and dimensions 2 (SSLD 2); Floor finishes in schools - Department for education and skills

Technical Specification

The table below details the technical properties of Polysafe Ultima.

Gauge		2.5 mm	
Roll Size		2m x 20m = 40m ²	
Product Weight		3000g/m ²	
General Performance		EN 13845 ASTM F1303 Agrément - G5ws	
Use Area Classification		23, 34, 43	
Reaction to Fire		EN 13501-1 Class Bfl-S1 EN ISO 9239-1 $\geq 8kw/m^2$ EN ISO 11925-2 Pass ASTM E648 Class 1	
Enhanced Slip		Sustainable wet slip resistance* EN 13845 ESf RRL Pendulum Test ≥ 40 (wet test - 4S Rubber/Slider 96) Surface roughness $Rz \geq 70\mu m$ (Typical result) AS/NZS 4586 R11 The slip resistance is assured throughout the guaranteed life of the product, with strict adherence to HSE Guidelines	
Abrasion Resistance		EN 13845 50,000 cycles EN 649 Group T	
VOC Emissions		AgBB VOC test: Pass (Low result)	
Agrément Assurance		Polysafe Ultima has been independently assessed by the British Board of Agrément and product performance is assured for at least 10 years in recommended use areas. With proper maintenance, the appearance, colour and slip resistance will be retained during this period	
Environmentally Preferable Flooring		Polysafe Ultima achieves a BRE Global Environmental A+ Rating (Certificate No: ENP 336) in major use areas such as education and healthcare. Polysafe Ultima is 100% recyclable and contains recycled material. A full Environmental Report detailing Polyflor's achievements in areas such as recycling, energy reduction and waste avoidance can be found at www.polyflor.com/environment	
Resistance to Chemicals		Polysafe Ultima has good resistance to dilute acids and alkalis. The Polyflor Technical Information Manual provides a general guide. Chemical resistance charts by shade are available on request	
Hygiene		Contains antimicrobial agents. This product has been independently tested and results demonstrate that it inhibits the growth of MRSA on the flooring. An effective cleaning regime is however, the most important defence against infection	
Electrical Behaviour		EN 1815 This product does not accumulate static charges above 2kV and is classified as 'antistatic'. For specialist applications where there is a requirement to dissipate the electrostatic charge, see the Polyflor ESD product ranges	



Customer Support

For information regarding handling and installation, adhesives, maintenance, applications and chemical resistance, consult Polyflor Customer Technical Services on +44 (0)161 767 1912 or e-mail tech@polyflor.com.

*For clarification regarding slip resistance, consult Polyflor Customer Technical Services.