## Safety at work - it's in all our best interests



## What are you obliged to do by law?

### As an employer...

What does the law require the employer to do about reducing the potential of slips and trips?

## "The law requires that floors must not be slippery, so they put people's safety at risk"

HSE – "Assessing the slip resistance of flooring"

The HSE has embarked on a Priority Programme to reduce slips by ensuring clients and specifiers assess risks and put preventative measures in place. This programme includes advertising, education and enforcement action.

(Visit www.hse.gov.uk/slips for more information.)

"Employers have responsibilities for the health and safety of their employees. They are also responsible for any visitors to their premises such as customers, suppliers and the general public." There is a duty to "make floors, walkways, stairs, roadways etc safe to use".

"The floors of workplaces must have no dangerous bumps, holes or slopes and must be fixed, stable and not slippery."

EU Directive 89/391/EEC on Health and Safety at Work and Council Directive 89/654/ EEC 1989 concerning the minimum safety and health requirements for the workplace.

## As a designer...

The client, specifier and supplier all have a role to play. Since these regulations were updated in April 2007, the designer has had a legal duty to ensure the safety of people using the buildings they design.

According to the Construction (Design and Management) (CDM) Regulations 2007, the designer must

- · make clients aware of their duties
- give due regard to health and safety in design work
- provide adequate information about the health and safety risk of the design to those who need it
- · co-operate with the planning supervisor and, where appropriate, other designers involved in the project

Designers now have a legal responsibility to "avoid foreseeable risks to the health and safety of any person using a structure designed as a workplace". Designing buildings to avoid the risk of slips and trips is therefore an important obligation, covered by UK law.

When it comes to the design of a building, at Altro we have thrown all our resources into offering designers a full range of safety flooring that enables those responsible to comply with Health and Safety requirements.

## Slips and Trips – the growing awareness

## Slips and trips cost

Slips and trips are a major cause of injury and absence from work. A slip and trip accident is recorded every 3 minutes. Slip and trip accidents are the most common cause of injury in the workplace across Europe.

Over 36% of all accidents that lead to injury in the UK are caused by slips and trips.

According to the Health & Safety Executive, slips and trips

- are the most common cause of injuries in UK workplaces
- cause almost 11,000 major injuries each year
- cost employers over £500 million each year
- cost the health service £133 million each year
- cause 55% of all accidents in education

### Slips and trips - vulnerable groups

Slips and trips are the leading source of injury, disability, lifelong impairment and death for the elderly, infirm and young. The EU Campaign for a Safer Europe states that most injuries are preventable and aims to reduce accidents among vulnerable groups by 25% by 2012.

Making the floor a priority – the danger area for slips

The floor surface in any environment is vital to the successful reduction of slip incidents. If you can minimise risk in this area you are well on your way to creating an accident-free zone.

### Flooring – Risk factors associated with slipperiness

Even a floor with little grip may pose no threat in perfect environmental conditions. However, conditions can change and this can have a marked effect on the slipperiness of a

Things to be aware of when assessing the potential slipperiness of floors:

- leaks, spills and splashes
- wet processes
- unsuitable entrance matting
- sloping surfaces
- wet floors following cleaning
- unsuitable footwear for floors
- unsuitable floors (e.g. glossy or polished surfaces)
- dust and other dry contaminants
- leaking roofs or condensation from pipework

To find out more, please request a copy of the Slips and Trips brochure or download it from www.altro.com

## Safety flooring - how does it work?



### Why safety flooring

- Smooth flooring can be easy to clean but not slip-resistant when wet
- Ceramic safety flooring can be slip-resistant but the relief and grout can make it difficult to clean
- Altro safety flooring provides excellent slip resistance; the smooth surface makes it easier to clean, while the integral roughness of the aggregates provides slip-resistance, even with spillages

### Why Altro safety flooring

Altro slip-resistant safety flooring is a modern solution, meeting the highest standards of safety and hygiene.

- Slip-resistant, even when wet, throughout lifetime of floor
- Impervious surface, grout-free
- Coves to wall joints for rounded corners
- Contains Altrosan integral bacteriostat to combat bacterial growth
- Incorporates Altro Easyclean Maxis Technology for improved cleanability - new PUR option available too
- Resilient surface, comfortable underfoot, contributes to reduced ambient noise levels
- Homogeneous and heterogeneous options available in high quality PVC, which have aggregates throughout the wear layer of the floor, to guarantee long-lasting performance
- Options for specialist applications available

### Safety Flooring Collection

Altro's unique, patented construction of flexible, high grade vinyl with slip-resistant grains throughout the wear layer of the safety flooring, ensures a durable surface that is slip-resistant for the life of the flooring.

### How vinyl safety flooring works

Altro safety flooring appears smooth on the surface but provides a high level of slip resistance when walked on. The pressure created by walking over safety flooring causes the aggregates in the flooring to stand proud and rub against the shoe, creating friction. Because of this, Altro safety flooring remains slip-resistant, even with spillages upon it.

### Traditional safety flooring

Integral bacteriostat Altrosan inhibits growth of bacteria and fungi for the lifetime of the product

Aggregates throughout the wear layer of the floor for lifelong slip and wear resistance



### Science behind Altro safety flooring

- Varieties of aggregate (including silicon carbide, quartz and aluminium oxide) are embedded in sheet vinyl to prevent slips and falls
- Integral bacteriostat and fungicide are incorporated into the material
- · Slip-resistant and hygienic properties throughout
- High quality reinforced glass fibre scrim provides strength and dimensional stability
- Built-in advanced cleaning technology

High Grade PVC for durability, flexibility and strength

High Quality Glass Fibre Scrim for dimensional stability



## Meet Paul Gardner – Technical Services Manager

Q - How was the revolutionary adhesive-free Altro XpressLay<sup>™</sup> developed?



A - "Altro's Technical Services Team consists of ex-floor layers, who have dealt with issues on a daily basis and seen how the industry works. We came up with the idea for Altro XpressLay because we have a close association with our customers and understand fitters' needs. I could see that if we could manufacture an all in one safety flooring, it would benefit our customers.

"Altro as a company, right up to the CEO, were prepared to take a chance on this product. You stake your company's name and reputation on a product's success. A more conservative company would not have been prepared to take that risk." 19

## Slip resistance tests

## Precision assessment of slipperiness

As a result of Altro's research and experience in the market, we consider that the following represent an overview of the most common and reliable methods of testing slip resistance internationally. These tests give consistent results and are portable, so they can measure slip potential on site at any time during the life of the flooring.

## Slip resistance tests

## Tests in Europe

There are two European standards (ENs) that have been developed by the European Committee for Standardisation (CEN), that have to be satisfied and are part of EN 14041, which is the CE label standard for resilient, textile and laminate floor coverings.

These two tests are:

- EN 13893 a pull sled test where the requirements are a coefficient of friction of ≥0.30
- EN 13845 Annex C a ramp test similar to DIN 51130 and DIN 51097 using water and soap as the contaminant.

For barefoot areas the requirement is  ${\geq}15^{\circ}$  and for shod\* areas  ${\geq}20^{\circ}$ 

It is compulsory for manufacturers like Altro to test to and pass these standards, if they are going to claim that flooring is slip-resistant and can be sold in European countries.

\*shod areas are areas where people normally wear shoes.

## Pendulum TRRL BS7976

The 'pendulum' coefficient of friction test is based on a swinging, dummy heel (using a slider made of a standardised rubber soling material) which sweeps over a set area of flooring in a controlled



manner. The slipperiness of the flooring has a direct and measurable effect on the pendulum value. Results should be interpreted using the information in the table.

## Potential for slip classification based on pendulum test values:

Pendulum value / Slip resistance value (TRRL)	Potential for slip
0 - 24	High
25 - 35	Moderate
36 +	Low

All Altro safety flooring for shod areas exceeds the 36+ rating, indicating the lowest potential for slip.

## Surface microroughness meter

An indication of slipperiness may be obtained by measuring the surface roughness of flooring materials. This test uses a microroughness meter which measures in Rz microroughness values (microns). This test is used

to examine on-going slip resistance on site, in conjunction with the pendulum test when required. Results should be interpreted using the information in the table below.

Potential for slip classification based on Rz microroughness values (application for water-wet low activity pedestrian areas):

Rz surface roughness (microns)	Potential for slip
Below 10	High
10 or above	Moderate
20 or above	Low

A surface roughness of 20 microns or above implies low slip risk.

In most circumstances, both pendulum Coefficient of Friction (CoF) and surface microroughness readings are required to give an accurate indicator of floor surface slipperiness.

### The ramp test

The ramp test (DIN 51130) is widely used and its 'R' values are quoted by most flooring companies. R9-R12 ratings are based on angle measurements, where an operator stands on a ramp, which is covered in oil. While the ramp test is a useful measure, it cannot be replicated on site.

### Ramp Test - Slip Angle



R9 is the lowest rating on the R scale, with a slip angle of only 6°, a rating found even in smooth vinyl flooring. All Altro safety flooring is rated R10 or above, with one achieving a rating of R12, making it suitable for greasy environments including professional kitchens.

A barefoot version of the test (DIN 51097) also exists, where the ramp is covered with water.



Altro Marine<sup>TM</sup> 20 / T20 barefoot flooring is rated C on DIN 51097, the highest slip resistance rating on the scale.



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## Slips and trips

'As New' floor measurements can become obsolete in weeks. Many supposed slip-resistant floors have a factory-finished coating which may wear off to leave a less slip-resistant surface. Altro's safety flooring technology is designed to maintain its slip-resistance throughout the life of the product. If you require further information, please contact your Altro Representative.

## Highlight on Sectors



## Tough and functional, without compromising on design

### Healthcare

Altro safety flooring takes pride of place in any care home or hospital design scheme. It offers a watertight, impervious system, making it ideal for wet rooms including bathrooms, barrier-free shower rooms and catering areas. The Altro safety flooring range has inherent hygiene qualities, due to the incorporation of Altrosan, which inhibits bacterial growth and minimises the risk of hospital borne infections and crosscontamination.

Altro have developed a range of resilient safety flooring to live up to your sense of style, without compromising on performance. It is ideal for areas such as receptions, foyers, visiting areas, patient treatment rooms, corridors, communal rooms and bedrooms in care homes; areas where the need for slip resistance, hygiene, durability and comfort is paramount. The Altro safety flooring range offers a superior combination of these features, compared to that provided by carpets or smooth floors.

With a specialist range of 2-4mm safety flooring, you can choose a design varying from the traditional to the modern, the regular to the homely. Furthermore, you can rest assured that you will satisfy your duty of care and meet your standards for hygiene, with flooring designed for ease of cleaning and maintenance.

### Education

Altro bring you interior surfaces that deliver a safe flooring solution, while creating stylish, dirt-hiding and stimulating environments for the education sector. We offer a wide range of colour options to suit any mood or application - from entrance foyers and corridors to changing rooms and classrooms.

The safety of the young is a particular focus of the EU Campaign for a Safer Europe. The number of accidents in Europe involving children, adolescents and young adults is high and the long-term consequences not only affect people's lives, but have financial implications too in terms of continual healthcare costs. A tough flooring solution, that has safety as its top priority, reduces the slip risk, which is a major cause of accidents. Our construction of flexible, high-grade vinyl incorporating mineral grains throughout the thickness, not only delivers slip resistance and a durable surface, but also peace of mind.

To create an integrated safety flooring and hygienic wall cladding solution, see pages 132-161 for Altro Whiterock products.

### Food, drink and hospitality

Altro safety flooring is durable for hard-working environments and has been put through its paces by the food and drink industry for the past 50 years.

Altro's unique construction provides a slip-resistant, resilient and durable safety flooring, which is ideal for use in greasy and wet environments, while providing a surface that performs to the highest standards of hygiene and maintenance. The different thicknesses of flooring make the range suitable for a variety of locations.

Floorings with medium to high slip resistance ratings provide the right balance between minimising slip risk and good cleanability, making them the perfect solution for the unique requirements of different food preparation environments.

Fully bonded vinyl flooring with hot welded joints can provide a watertight and tankable system. The addition of Altrosan™ bacteriostat is proven to inhibit the growth of bacteria. All Altro safety flooring benefits from either Altro Easyclean Maxis PUR, Altro Easyclean Maxis Technology or Altro Easyclean Original Technology, providing varying levels of improved cleanability to suit your requirements - see each product page for details.

Whether used in food and beverage factories, slaughterhouses, bakeries, commercial kitchens, serveries, bars or storerooms, Altro have a specialist solution for any project, where food or drink is prepared or processed.

## Leisure and Retail

For safety flooring with impact, Altro offer a complete range of contemporary, traditional, minimalist and striking flooring solutions, which make a statement in any retail or leisure setting.

Durable, hard-wearing, hygienic surfaces, which offer slip resistance and comfort underfoot are among the qualities which make Altro safety flooring perfect for areas such as shops, display areas, foyers, receptions, showers, changing rooms and pool surrounds.







## NEW Altro Easyclean Maxis PUR<sup>™</sup> Technology

## Another industry first! Ground-breaking PUR, proven durability and performance

We are proud to launch a vanguard new PUR Technology to bring you many industry-leading performance benefits. Our belief in our new Altro Easyclean Maxis PUR Technology is so great that we are backing it with a no-quibble Lifetime Pledge. Simply subject it to normal usage and clean it according to our instructions and you'll be delighted with the level of performance not just for the warrantied life of the product, but for the expected lifetime of the product too. You can buy with confidence, knowing that your choice of product is fully backed by the Altro Assurance of Customer Satisfaction.

## Altro Easyclean Maxis PUR Technology is unique in the market.

## This latest development in our Altro Easyclean suite of technologies affords

- Industry-leading ease of cleaning
- Ground-breaking long-term cleanability
- Industry-leading cleaning and maintenance cost savings
- Ground-breaking long-term slip resistance
- Ground-breaking long-term durability
- Ground-breaking long-term low dirt pick-up
- Ground-breaking colour retention

## How have we done it?

## Advanced PUR Technology

- Incorporated throughout the wear layer to ensure unparalleled performance for the life of the product
- Improved structure to prevent dirt retention around slip resistance particles, unlike conventional safety flooring and standard PURs
- Slip-resistant particles throughout the product for guaranteed slip resistance, regardless of degree of wear

Our PUR Lifetime Pledge ensures peace of mind. You can rest assured that your flooring will retain its good looks; your choice of pale or vibrant colours will not let you down in high traffic areas and save you up to 60% on cleaning and maintenance costs during the lifetime of the product compared to non PURtreated safety flooring.

## Key benefits for you of Altro Easyclean Maxis PUR Technology

## Peace of mind

- Proven ground-breaking PUR Technology rigorously tested to ensure performance for the life expectancy of the product
- Tests prove unrivalled long-term slip resistance
- Tests prove unrivalled long-term durability

## Extends the uses of safety flooring and lighter colours

 Ideally suited to busy areas on public display – enables you to use light colours in new and more demanding environments

## Keeps your floor looking pristine

- Tests prove unrivalled low dirt pick-up for improved longterm cleanability; your flooring is easier to clean and looks cleaner between cleans
- Tests prove unrivalled colour retention; your colours and patterns will stay looking new for longer
- Tests prove resistance to most staining and chemicals, ensuring appearance retention and cleanability

## Saves you money

- Requires a less stringent cleaning regime using less water and fewer chemicals, keeping your environmental impact and cleaning budget to a minimum
- Significant maintenance savings over traditional and non PUR treated safety flooring products of up to 60% over a 15 year life cycle period



The Altro Suprema II colour palette was designed to support the interior trend needs of now ar the future. They have been designed with global architects and designers in mind and a wish to continue to create unique and technically superior safety flooring with Altro. Sonia Novak Creative Director, BrindleyNovak Consultancy

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Safety Iooring

## Altro Suprema<sup>™</sup> II



Colour your world with the range that offers the broadest palette on the market plus Altro Easyclean Maxis PUR Technology

Offering you an impressive palette of 40 colours, design-led Altro Suprema II creates just as many moods - from subtle and understated to bold and inventive. It is perfect for areas where you historically wouldn't expect to see a safety floor, or for areas where you would not have previously dared to specify light colours.

Altro Suprema II has been produced in response to global customer feedback. It has been developed in consultation with architects, end users and colour consultants, taking into account not just current design requirements but future colour and interior trends.

The scope of the range, enables the choice of colour to become a decisive factor when specifying safety flooring. Altro Suprema II will allow you to co-ordinate your safety flooring not only with existing décor but also with daring colourways, traditionally served by alternative types of flooring.

• Incorporates Altrosan bacteriostat for enhanced hygiene

### Please see product selector on pages 14-15 for full details.

Format: Roll

Contributes to reducing the environmental impact of your specification:

• A+ BRE Generic Green Guide Rating for Safety Flooring, full details available at www.thegreenguide.org.uk

Thickness: 2mm

### Typical applications

- receptions
- meeting rooms
- foyers
- corridors
- · circulation areas
- hospital wards
- education
- healthcare
- leisure
- retail
- offices



Parchment SU2041 WR267 A1M20 LRV 45



Wheat SU2051 WR281 A1M225 LRV 36





LRV 13

Poppy SU2045 WR280 A1M238

LRV 10

Owl SUI2068 WR20 A1M20 LRV 40

Honey SU2053

WR152 A1M152

Sugar SU2042 WR284 A1M01 LRV 65

Cotton SUI2071 WR284 A1M01 LRV 65

Product information Tel: +44 1462 707 600 E-mail: enquiries@altro.com Codes: LRV = Light Reflectance Value, WR = Weldrods, A1M = Mastic For an unobtrusive appearance, colour matched weldrods and mastics are available. EXPERIENCE HAS SHOWN THAT PRINTING CANNOT REPRODUCE COLOURS ACCURATELY. IF COLOUR CHOICE IS CRITICAL, PLEASE REQUEST A SAMPLE OF THE MATERIAL

LRV 32



Cocoa SU2060

WR62 A1M62

LRV 10





R10













Prairie SU2044 WR279 A1M20 LRV 31



Loam SU2047 WR260 A1M260 LRV 8

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Safety Flooring



Paprika SU2043 WR278 A1M42





Oatmeal SU2046 WR265 A1M265 LRV 38

Calico SUI2069

WR283 A1M20

LRV 52



Taupe SU2040 WR282 A1M239 LRV 23



Earth SUI2066 WR282 / A1M239 LRV 23



## Continued overleaf...



## Altro Suprema<sup>™</sup> II Continued

Safety C Flooring OO	Olive SU2048	Caspian SU2038	Bluebird SU2037			
νΞ	WR263 A1M89	WR194 A1M71	WR231 A1M73		6 66	
	LRV 14	LRV 18	LRV 10	Part and and		
	Vine SU2035 WR233 A1M233	Meadow SUI2072 WR233 A1M233	Bluewater SUI2073 WR194 A1M71			
	LRV 20	LRV 21	LRV 17			
	Fennel SU2049	Aegean SU2057	Bubble SU2039	Flint SU2034	Lava SUI2070	
	WR262 A1M154 LRV 25	WR270 A1M56 LRV 23	WR285 A1M203 LRV 34	WR82 A1M82 LRV 13	WR260 A1M260 LRV 8	
	<b>Dew SU2036</b> WR191 A1M191	Wolf SU2050 WR261 A1M81	Moon SUI2065 WR191 A1M191			
	LRV 45	LRV 29	LRV 44			



Grape SU2058

WR274 A1M34

LRV 7



LRV 33

Malibu SU2062 WR272 A1M272 LRV 26

## Please see product selector on pages 14-15 for full details.

Thickness: 2mm

Product information Tel: +44 1462 707 600 E-mail: enquiries@altro.com Codes: LRV = Light Reflectance Value, WR = Weldrods, A1M = Mastic For an unobtrusive appearance, colour matched weldrods and mastics are available. EXPERIENCE HAS SHOWN THAT PRINTING CANNOT REPRODUCE COLOURS ACCURATELY. IF COLOUR CHOICE IS CRITICAL, PLEASE REQUEST A SAMPLE OF THE MATERIAL













Raven SU2054 WR277 A1M100

LRV 7



Shell SU2055 WR268 A1M79 LRV 39



Shadow SU2056 WR269 A1M84

LRV 24

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Platinum SUI2064 WR201 A1M84 LRV 24





Fossil SUI2067 WR232 A1M82 LRV 12



Flamingo SU2063 WR276 A1M276 LRV 16



Berry SU2059 WR275 A1M44 LRV 8



Tangerine SU2052 WR273 A1M273 LRV 20



## Altro Timbersafe<sup>™</sup> II







Rustic Pine TS2021 WR226 A1M226 LRV 29

Rich Walnut TS2024 WR227 A1M227 LRV 11



WR160 A1M160 LRV 13

Altro Timbersafe II features nine finishes of true wood-look, sparkle-free safety flooring for busy, public areas where spills may create a slip hazard. These warm, natural tones create welcoming yet practical environments and are ideal where safety and aesthetics cannot be compromised.

The new extended width of 2 metres means that Altro Timbersafe II now conforms to standard safety floor widths. Making area calculations is therefore standardised and excess waste avoided.

With Altro Timbersafe II, you will demonstrate a high level of duty of care; providing flooring boasting excellent slip resistance and meeting strict European VOC emission standards.

This range contains Altro Easyclean Maxis<sup>™</sup> Technology for superior cleanability and colour retention; in addition, less water and detergent are required when cleaning.

Contributes to reducing the environmental impact of your specification:

• A+ BRE Generic Green Guide Rating for Safety Flooring, full details available at www.thegreenguide.org.uk

## **Typical applications:**

- · busy public areas
- corridors
- wards
- shops
- cafes
- receptions

Please see product selector on pages 14-15 for full details.

Format: Roll

Thickness: 2mm

Product information Tel: +44 1462 707 600 E-mail: enquiries@altro.com Codes: LRV = Light Reflectance Value, WR = Weldrods, A1M = Mastic For an unobtrusive appearance, colour matched weldrods and mastics are available. EXPERIENCE HAS SHOWN THAT PRINTING CANNOT REPRODUCE COLOURS ACCURATELY. IF COLOUR CHOICE IS CRITICAL, PLEASE REQUEST A SAMPLE OF THE MATERIAL













Fruit Wood TS2023 WR259 A1M225

LRV 27



Blond Oak TS2016 WR225 A1M225 LRV 37



Classic Oak TS2017 WR15 A1M15

LRV 28





Traditional Oak TS2018 Mellow Beech TS2020 WR16 A1M258 LRV 15



WR224 A1M224 LRV 36





Warm Cherry TS2022 Golden Beech TS2019 WR171 A1M246 LRV 22



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## Altro Mirica<sup>™</sup>

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Unicorn MC2001 WR236 A1M87 LRV 35

This safety flooring boasts a subtle, textured-look pattern, which camouflages soiling, making it ideal for high traffic areas. It features Altro Easyclean Maxis Technology, for enhanced cleanability. In addition, Altro Mirica retains its attractive appearance between cleaning cycles to deliver safety without compromising appearance retention.

Including a high quality 0.8mm wear layer for a hard-wearing finish and enhanced chemical resistance, it provides a reduced risk of failure due to chemical attack and longer life expectancy.

Altro Mirica perfectly complements Altro Suprema II and both products have been used together in a variety of applications to create design interest and distinguish area functionality.

Contributes to reducing the environmental impact of your specification:

• A+ BRE Generic Green Guide Rating for Safety Flooring, full details available at www.thegreenguide.org.uk

## **Typical applications:**

- high traffic areas
- corridors
- classrooms
- hospital streets
- shops
- supermarkets
- reception areas
- serveries

Please see product selector on pages 14-15 for full details.

Format: Roll

Thickness: 2mm

Product information Tel: +44 1462 707 600 E-mail: enquiries@altro.com Codes: LRV = Light Reflectance Value, WR = Weldrods, A1M = Mastic For an unobtrusive appearance, colour matched weldrods and mastics are available. EXPERIENCE HAS SHOWN THAT PRINTING CANNOT REPRODUCE COLOURS ACCURATELY. IF COLOUR CHOICE IS CRITICAL, PLEASE REQUEST A SAMPLE OF THE MATERIAL



R10









Hydra MC2003 WR203 A1M203

LRV 30



Kraken MC2002 WR230 A1M203

LRV 39





## Altro Maxis<sup>™</sup> 25



At 2.5mm thick, Altro Maxis 25 offers excellent durability and resistance to mechanical or physical damage, saving on long term replacement costs. The aluminium trioxide throughout the thickness of the material affords lifelong slip resistance, even when wet. It offers enhanced chemical resistance and a bacteriocide for MRSA resistance, thereby enhancing patient welfare by reducing the risk of infection.

Altro Maxis 25 offers you a range of colours to suit your design requirements, including darker options to mask soiling, therefore making it ideal for such applications as laboratories and art rooms.

This range contains Altro Easyclean Maxis Technology for superior cleanability and colour retention; in addition, less water and detergent are required when cleaning.

It is ideal for high traffic areas, where an attractive appearance and safety underfoot are critical.

Contributes to reducing the environmental impact of your specification:

• A+ BRE Generic Green Guide Rating for Safety Flooring, full details available at www.thegreenguide.org.uk

## Typical applications:

- public circulation areas
- school corridors
- classrooms
- hospital streets
- shops
- supermarkets
- laboratories
- art/craft rooms



Galaxy MXI25219 WR100 A1M100 LRV 6



Summit MXD25206 WR81 A1M81 LRV 26



Vanguish MXI25211 LRV 22



Fusion MXI25208

WR83 A1M83

LRV 14



Pinnacle MXD25204

WR52 A1M52

LRV 14



Calibre MXD25201

WR72 A1M72

LRV 10



LRV 25

Legend MXD25215 WR231 A1M73 LRV 10

Universe MXI25209

WR84 A1M84 LRV 22

Please see product selector on pages 14-15 for full details.

Format: Roll

Thickness: 2.5mm

Product information Tel: +44 1462 707 600 E-mail: enquiries@altro.com Codes: LRV = Light Reflectance Value, WR = Weldrods, A1M = Mastic For an unobtrusive appearance, colour matched weldrods and mastics are available. EXPERIENCE HAS SHOWN THAT PRINTING CANNOT REPRODUCE COLOURS ACCURATELY. IF COLOUR CHOICE IS CRITICAL, PLEASE REQUEST A SAMPLE OF THE MATERIAL















Epic MXI25212 WR105 A1M1

LRV 64



Sovereign MXD25214 WR157 A1M42

LRV 11

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WR173 A1M71



Meridian MXI25216 WR63 A1M239 LRV 22



Merit MXD25207 WR20 A1M20 LRV 40



WR243 A1M147





WR12 A1M12 LRV 51



Endeavour MXI25210 WR27 A1M27 LRV 29





## Altro Designer<sup>™</sup> 25



This 2.5mm thick hard-wearing safety flooring includes coloured quartz crystals in exciting base colours to enhance any interior scheme. Available in a variety of colours, it gives you design flexibility and the scope to colour co-ordinate.

Altro Designer 25 is highly flexible and easy to lay. It can be easily hot welded to produce an unobtrusive and impervious floor, minimising the ingress of dirt and helping maintain hygiene standards. The long-term durability and excellent slip resistance ideally lend it to applications in medium to heavy duty environments. Designed for low maintenance, it features Altro Easyclean<sup>™</sup> Original Technology for a lasting attractive appearance and savings in time and cleaning costs, plus a bacteriostat for enhanced hygiene.

Contributes to reducing the environmental impact of your specification:

• A+ BRE Generic Green Guide Rating for Safety Flooring, full details available at www.thegreenguide.org.uk

## Typical applications:

- general circulation areas
- school corridors
- classrooms
- hospital streets
- shops



Jet D2501 WR100 A1M100 LRV 6



LRV 30





Victoria D25908 WR148 A1M148 LRV 9

LRV 30

Rust D25907 WR150 A1M238 LRV 10

Please see product selector on pages 14-15 for full details.

Format: Roll

Thickness: 2.5mm

Product information Tel: +44 1462 707 600 E-mail: enquiries@altro.com Codes: LRV = Light Reflectance Value, WR = Weldrods, A1M = Mastic For an unobtrusive appearance, colour matched weldrods and mastics are available. EXPERIENCE HAS SHOWN THAT PRINTING CANNOT REPRODUCE COLOURS ACCURATELY. IF COLOUR CHOICE IS CRITICAL, PLEASE REQUEST A SAMPLE OF THE MATERIAL













Midnight D25421 WR72 A1M72



Teal D25906 WR147 A1M147 LRV 13



Twilight D25910 WR39 A1M34

LRV 8



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Biscuit D25904 WR146 A1M20



Skyline D25332 WR52 A1M52 LRV 25



Fog D25153 WR81 A1M81 LRV 27



Rosa D25905 WR149 A1M149



Storm D25903 WR82 A1M82

LRV 16



Bone D25215 WR20 A1M20

LRV 37



## Altro Walkway<sup>™</sup> 20

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Altro Walkway has been extended to include bright and subtle colours, as well as decorative chipped options. The addition of ten new chip products and two new brighter plain colours gives you a varied selection of 24 for enhanced design flexibility.

The scope of new Altro Walkway extends the potential applications of this range, enabling you to create inspiring environments in a variety of installations.

Altro Walkway is a hugely popular hard-wearing 2mm safety flooring, providing lifelong slip and abrasion resistance. Additional benefits include superior chemical and indentation resistance, which contribute to excellent product durability. Easy to cove and weld, it affords reduced installation costs.

Altro Walkway achieves 36 and above on the pendulum test throughout the lifetime of the product. It is fully backed with a 10 year warranty and boasts a life expectancy of over 15 years, affording you complete peace of mind.

### Static dissipative option

Minimise the risk of damage to, or failure of, static-sensitive equipment, such as computers, by opting for the "SD" Altro Walkway version. Suitable for areas such as laboratories, computer suites and electronic assembly, which require a floor covering with static dissipative properties.

Contributes to reducing the environmental impact of your specification:

• A+ BRE Generic Green Guide Rating for Safety Flooring, full details available at **www.thegreenguide.org.uk** 

## Typical applications:

- busy public areas
- corridors
- kitchens (up to 100 covers)
- bars/serveries
- classrooms
- hospitals
- shops

### Please see product selector on pages 14-15 for full details.

Thickness: 2mm



## Altro Walkway<sup>™</sup> 20 Continued

DIN 51130





Lupin VMI2059 WR286 A1M286 Savannah VMI2050 WR153 A1M239 LRV 19





Coal VMI2058 WR100 A1M100 LRV 6

Whale VMI2054 WR86 A1M86 LRV 20

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Safety Flooring



Midnight VM20421 WR72 A1M72 LRV 11

Canary VM2030 WR247 A1M247

Please see product selector on pages 14-15 for full details.

LRV 44

## Codes: LRV = Light Reflectance Value, WR = Weldrods, A1M = Mastic

For an unobtrusive appearance, colour matched weldrods and mastics are available. \* Indicates static dissipative grade available. For code use standard product code followed by 'SD'. Due to the addition of static dissipative properties, Altro Walkway 20 SD

does not have exactly the same appearance as that shown above.

EXPERIENCE HAS SHOWN THAT PRINTING CANNOT REPRODUCE COLOURS ACCURATELY. IF COLOUR CHOICE IS CRITICAL, PLEASE REQUEST A SAMPLE OF THE MATERIAL

Format: Roll

Thickness: 2mm

Dimensions: 20 x 2m













River VMI2057 WR71 A1M71

LRV 22







Tarragon VMI2052 WR52 A1M52

LRV 26

Sand VMI2051

WR20 A1M20

LRV 40



Winter VMI2053 WR105 A1M1

LRV61



Blizzard VMI2055 WR79 A1M191

LRV 44

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Safety Flooring





Product information Tel: +44 1462 707 600 E-mail: enguiries@altro.com

## Altro XpressLay<sup>™</sup>

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# NO GLUE.

Altro XpressLay is the first ever adhesive-free safety floor, designed to save you time, money and hassle.

This pioneering safety flooring has a unique underside emboss that forms tiny air channels allowing any moisture left in the subfloor to escape. This technology means that you can apply Altro XpressLay™ to a new concrete floor at up to 97% humidity and get the job done more economically without any problems.

- **No messing** no need for adhesive or a surface damp-proof membrane
- **No contamination** is sustainable and can be recycled post-installation
- No delays fit directly even at 97% relative humidity (no waiting until 75%), even on problem surfaces like existing tiles and flaky paint
- **No hassle** keep underfloor heating on, rather than enduring timely shutdowns
- No hold-ups no waiting for adhesive to 'cure', same-day welding and you can walk on the floor straight away



- No tricky fits can be straight laid or self-coved as standard safety flooring without any problems
- No longevity issues a highly durable, slip resistant flooring for highly-trafficked areas
- No problems Altrosan<sup>™</sup> bacteriostat for enhanced hygiene
- No worries a BRE Generic A+ Environmental Rating in the majority of applications make it the sustainable option
- No uncertainty enjoy peace of mind with free expert technical support from Altro and a 10-year warranty

## Perfect for problem areas



Project:	Herne Bay High School
Location:	Canteen
Size:	450m <sup>2</sup>
Issue:	Subfloor moisture and timings

When rain damage threatened to disrupt Herne Bay High School with lengthy closures for repairs, instead of a six week construction programme to remove the damaged flooring and re-screed the subfloor, Altro XpressLay was installed over a weekend, enabling a scheduled parents' evening to go ahead on the Monday.

Now following the successful installation of Altro XpressLay in the canteen, a number of Altro floor and wall coverings are being used elsewhere at the school as part of a major refurbishment programme.

Cliff Reader of Provian Construction Ltd, the main contractors working on a three year refurbishment at the school, was impressed with the solution.



Project:	United Nations Development Programme - The Environment General Authority, Libya
Location:	Laboratories
Size:	900m²
Issue:	Damp floor

If only all jobs went as smoothly as this! The fitters were dubious about installing Altro XpressLay at first, but were delighted how straightforward this project was. I look forward to installing Altro XpressLay again, be it in the UK or abroad.

I was very impressed with the way David and his team carried out this work, and overwhelmed with the final outcome. It's one thing to approve a product on paper, but to see it in situ to such perfection and with the latest technology incorporated is just amazing.

Sarah Edongali, EGA Project Co-ordinator, UNDP Libya.

## Altro XpressLay<sup>™</sup>





The world's first ever, adhesive-free safety floor has a unique underside emboss that forms tiny air channels allowing any moisture left in the subfloor to escape. This technology means that you can apply Altro XpressLay to a new concrete floor at up to 97% relative humidity, completing the installation more economically and speedily. It may also be installed over existing sound and secure flooring surfaces such as vinyl tiles.

Altro XpressLay is supplied with free Altro LooseLay double sided tape, which is specifically formulated to work with the underside of the flooring, ensuring optimum installation results and conformity to our 10 year warranty.

Altro XpressLay can be installed in applications where adhered safety flooring is inappropriate, such as historical and listed buildings, thereby extending the scope of safety flooring itself. It is also ideal for temporary installations, such as exhibitions or portacabins, as it can be easily removed post-installation.

Altro XpressLay is the truly sustainable option, as it is 100% recyclable post-installation.

Contributes to reducing the environmental impact of your specification:

• A+ BRE Generic Green Guide Rating for Safety Flooring, full details available at www.thegreenguide.org.uk

## Typical applications:

- general circulation areas
- school corridors
- classrooms
- hospital streets
- shops
- · historical/listed buildings
- temporary buildings / portacabins



Dolphin XL2210 WR86 A1M86 LRV 21

Black XL22892 WR100 A1M100 LRV 6





Space XLI22003

WR100 A1M100



Cherry XL22920

WR148 A1M148 LRV 10

WR20 A1M20 LRV 37



Coffee XLI22007

WR63 A1M239

LRV 22



Dragon XLI22001 WR251 A1M238 LRV 11

LRV 38



Format: Roll

Thickness: 2.2mm

Product information Tel: +44 1462 707 600 E-mail: enquiries@altro.com Codes: LRV = Light Reflectance Value, WR = Weldrods, A1M = Mastic For an unobtrusive appearance, colour matched weldrods and mastics are available. EXPERIENCE HAS SHOWN THAT PRINTING CANNOT REPRODUCE COLOURS ACCURATELY. IF COLOUR CHOICE IS CRITICAL, PLEASE REQUEST A SAMPLE OF THE MATERIAL





















Bone XL22215



Sahara XLI22004 WR20 A1M20



Fog XL22153 WR81 A1M81

LRV 27



BlueBerry XLI22002 WR231 A1M73 LRV 11

Blue XL22412

WR71 A1M71

LRV 22



Cloud XL2214 WR79 A1M191 LRV 41



Rhino XLI22009 WR04 A1M85 LRV 35



Skyline XL22332 WR52 A1M52 LRV 24



Lake XLI22005 WR245 A1M203 LRV 30



Herb XLI22008 WR52 A1M52

LRV 24



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## Altro Impressionist<sup>™</sup>II



This decorative, yet practical 2mm thick safety flooring is ideal for medium to high traffic areas. It features coloured chips set in a complementary background, enabling adjacent floor and wall finishes to be co-ordinated.

The coloured chips are fused to the main body of the flooring, resulting in lifelong slip resistance, improved appearance retention and strength. It is designed to provide flexibility for detailing and coving, hot weld strength, excellent chemical resistance and durability.

It contains Altro Easyclean Original Technology for ease of cleaning and maintenance and a bacteriostat to inhibit the growth of micro-organisms such as MRSA.

Contributes to reducing the environmental impact of your specification:

• A+ BRE Generic Green Guide Rating for Safety Flooring, full details available at www.thegreenguide.org.uk

## **Typical applications:**

- public circulation areas
- school corridors
- classrooms
- hospital streets
- shops
- supermarkets



Ebony IP2001 WR100 A1M100 LRV 6



Oasis IP2011 WR136 A1M136 LRV 49





WR81 A1M81

LRV 26



Tranquil IP2017

WR71 A1M71 LRV 21



Lunar IP2005

WR85 A1M85 LRV 36

Please see product selector on pages 14-15 for full details.

Format: Roll

Thickness: 2mm

Product information Tel: +44 1462 707 600 E-mail: enquiries@altro.com Codes: LRV = Light Reflectance Value, WR = Weldrods, A1M = Mastic For an unobtrusive appearance, colour matched weldrods and mastics are available. EXPERIENCE HAS SHOWN THAT PRINTING CANNOT REPRODUCE COLOURS ACCURATELY. IF COLOUR CHOICE IS CRITICAL, PLEASE REQUEST A SAMPLE OF THE MATERIAL















Arctic IP2012 WR11 A1M11 LRV 49



Adobe IP2008 WR24 A1M27 LRV 32



Safety Flooring



Zen IP2015 WR137 A1M137

LRV 34



Stucco IP2013 WR105 A1M1 LRV 61



Canvas IP2009 WR12 A1M12 LRV 48





Mineral IP2003 WR83 A1M83

LRV 14



Aqua IP2018 WR135 A1M135

LRV 38



## Altro Classic<sup>™</sup> 25







Anvil X2594 WR101 A1M72 LRV 11

Blue X2541 WR71 A1M71 LRV 20

Altro Classic 25 is the original hard-wearing, slip-resistant safety flooring, providing lasting slip resistance, enhanced durability and good abrasion resistance, making it ideal for heavy traffic areas. With good dimensional stability, it offers long term appearance retention and replacement costs, making it a perennially popular choice.

Altro Classic 25 contains a bacteriostat to inhibit the growth of bacteria, contributing to hygiene standards and reducing the risk of cross-infection and Altro Easyclean Original Technology for ease of cleaning and maintenance.

Contributes to reducing the environmental impact of your specification:

• A+ BRE Generic Green Guide Rating for Safety Flooring, full details available at www.thegreenguide.org.uk

## Typical applications:

- public circulation areas
- school corridors
- classrooms
- hospitals
- shops
- supermarkets

Please see product selector on pages 14-15 for full details.

Thickness: 2.5mm

Product information Tel: +44 1462 707 600 E-mail: enquiries@altro.com Codes: LRV = Light Reflectance Value, WR = Weldrods, A1M = Mastic For an unobtrusive appearance, colour matched weldrods and mastics are available. EXPERIENCE HAS SHOWN THAT PRINTING CANNOT REPRODUCE COLOURS ACCURATELY. IF COLOUR CHOICE IS CRITICAL, PLEASE REQUEST A SAMPLE OF THE MATERIAL













Mushroom X2542 WR24 A1M27

LRV 32



Walnut X2586 WR62 A1M62

LRV 10



Quarry Red X2560 WR42 A1M42

LRV 13

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Moss X2533 WR51 A1M51 LRV 17



Pewter Grey X2539 WR81 A1M81 LRV 26



## Altro Marine<sup>™</sup>20



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The carefully textured 2mm thick dimpled surface is specifically designed for safety with wet, bare feet or soft soled footwear. Comfortable underfoot, it affords superb slip resistance when wet, making it ideal for use in shower areas and swimming surrounds as well as other wet areas requiring slip resistance within the healthcare, leisure and education sectors.

It contains a bacteriostat to inhibit the growth of microorganisms, such as MRSA, reducing the risk of crosscontamination and potential subsequent litigation claims.

Easy to clean and maintain, its hard-wearing construction provides enhanced chemical and indentation resistance, resulting in a longer life expectancy.

It co-ordinates well with Altro Walkway 20 or Altro Impressionist II in adjacent areas and Altro Whiterock<sup>™</sup> wall cladding.

Contributes to reducing the environmental impact of your specification:

• A+ BRE Generic Green Guide Rating for Safety Flooring, full details available at www.thegreenguide.org.uk

**Typical applications:** 

- swimming pool/whirlpool surrounds



Gull T20813 WR79 A1M191 LRV 46



Shark IPT20812 WR201 A1M84 LRV 24

Marlin T20811 WR203 A1M203 LRV 34



Tide IPT20808

WR71 A1M71

LRV 21



Rainfall IPT20810 WR135 A1M135 LRV 43

WR85 A1M85 LRV 37

## showers/drying areas

- spas/wet areas



Product information Tel: +44 1462 707 600 E-mail: enquiries@altro.com Codes: LRV = Light Reflectance Value, WR = Weldrods, A1M = Mastic For an unobtrusive appearance, colour matched weldrods and mastics are available. EXPERIENCE HAS SHOWN THAT PRINTING CANNOT REPRODUCE COLOURS ACCURATELY. IF COLOUR CHOICE IS CRITICAL, PLEASE REQUEST A SAMPLE OF THE MATERIAL

Please see product selector on pages 14-15 for full details.

Format: Roll

Thickness: 2mm







Seagrass IPT20814 WR137 A1M137 LRV 37



10 Vecr productwarranty

Cascade IPT20809 WR105 A1M1 LRV 71







Steam IPT20807



Fen IPT20815 WR242 A1M242 LRV 19



Reef T20801 WR20 A1M20 LRV 41



## Altro Stronghold<sup>™</sup> 30



Safety looring



A 3mm thick flooring designed for safety in wet and greasy conditions where frequent spillage is likely, this product is ideally suited for commercial kitchen usage. Boasting Altro's highest rating for slip resistance, Altro Stronghold 30 minimises slip risk in areas of heavy traffic. It offers long term durability and ease of cleaning.

Altro Stronghold contains a bacteriostat to inhibit the growth of bacteria, contributing to hygiene standards and reducing the risk of cross-infection.

Altro Stronghold is frequently specified with Altro Whiterock<sup>™</sup> wall cladding to create safe and hygienic environments in commercial and industrial kitchens, as well as healthcare.

Contributes to reducing the environmental impact of your specification:

• A+ BRE Generic Green Guide Rating for Safety Flooring, full details available at www.thegreenguide.org.uk

## **Typical applications:**

- commercial kitchens (400+ covers)
- hospital kitchens
- food processing
- hospitals
- laboratories
- bars
- canteens/serveries
- supermarkets
- shops/showrooms



Abyss K3001 WR100 A1M100 LRV 7

Velvet K30365

WR256 A1M148

LRV 8



Monsoon K30153 WR81 A1M81 LRV 24





Maple K30522 WR24 A1M27 LRV 31

WR41 A1M41 LRV 14

Russet K30262

kness: 3mm	

Product information Tel: +44 1462 707 600 E-mail: enquiries@altro.com Codes: LRV = Light Reflectance Value, WR = Weldrods, A1M = Mastic For an unobtrusive appearance, colour matched weldrods and mastics are available. EXPERIENCE HAS SHOWN THAT PRINTING CANNOT REPRODUCE COLOURS ACCURATELY. IF COLOUR CHOICE IS CRITICAL, PLEASE REQUEST A SAMPLE OF THE MATERIAL

Please see product selector on pages 14-15 for full details.

Format: Roll

Thick













Surf K30412 WR71 A1M71

LRV 20



Lagoon K30910 WR39 A1M34

LRV 7



Safety Flooring



Tundra K30500 WR153 A1M239

LRV 17



Camel K3017 WR64 A1M239 LRV 26



Skyline K30332 WR52 A1M52 LRV 24





Oyster K30215 WR20 A1M20





Dolphin K3010 WR86 A1M86

LRV 21





## Altro Atlas<sup>™</sup> 40





At 4mm thick, Altro Atlas 40 is the toughest Altro safety flooring. Hard-wearing, with improved indentation resistance, it offers you enhanced resistance to mechanical damage, longterm durability and slip resistance. Its construction affords enhanced chemical resistance and stability, ease of cleaning and maintenance.

It is suitable for a wide range of heavy duty locations (except fork lift traffic areas, where Altro resin systems are ideal).

• Altro Atlas incorporates bacteriostat for enhanced hygiene

Contributes to reducing the environmental impact of your specification:

• A+ BRE Generic Green Guide Rating for Safety Flooring, full details available at www.thegreenguide.org.uk

## Typical applications:

- public circulation areas
- light engineering
- chemical processing
- food production
- heavy duty trolley traffic
- airports
- railway stations



Anvil X4094 WR101 A1M72 LRV 11

Pewter Grey X4939 WR81 A1M81 LRV 26

## Please see product selector on pages 14-15 for full details.

Thickness: 4mm

Product information Tel: +44 1462 707 600 E-mail: enquiries@altro.com Codes: LRV = Light Reflectance Value, WR = Weldrods, A1M = Mastic For an unobtrusive appearance, colour matched weldrods and mastics are available. EXPERIENCE HAS SHOWN THAT PRINTING CANNOT REPRODUCE COLOURS ACCURATELY. IF COLOUR CHOICE IS CRITICAL, PLEASE REQUEST A SAMPLE OF THE MATERIAL













Mushroom X4042 WR24 A1M27

LRV 32



Walnut X4086 WR62 A1M62 LRV 10



Quarry Red X4060 WR42 A1M42

LRV 13







## Altro Cordiale<sup>™</sup>





Fog CD20153 WR81 A1M81 LRV 27

WR72 A1M72 LRV 11

Our extensive ranges of safety flooring offer an industry leading combination of performance and low life cycle costs. This plasticised polyacrylate flooring product fulfils the need for resilience and safety where, for specific reasons, vinyl flooring is not appropriate.

## Typical applications:

- canteens
- pubs
- hospitals
- schools
- retail

Please see product selector on pages 14-15 for full details.

Thickness: 2mm

Product information Tel: +44 1462 707 600 E-mail: enquiries@altro.com Codes: LRV = Light Reflectance Value, WR = Weldrods, A1M = Mastic For an unobtrusive appearance, colour matched weldrods and mastics are available. EXPERIENCE HAS SHOWN THAT PRINTING CANNOT REPRODUCE COLOURS ACCURATELY. IF COLOUR CHOICE IS CRITICAL, PLEASE REQUEST A SAMPLE OF THE MATERIAL



R11











Bone CD20215 WR20 A1M20 LRV 37



Skyline CD20332 WR52 A1M52

LRV 24



Blue CD20412 WR71 A1M71 LRV 22

Safety Flooring

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Midnight CD20421



Black CD20892 WR100 A1M100 LRV 6

