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| Uniclass L442 | EPIC D43 | | |
| CI/SfB | (42) | X | (X7) |

Wall Protection Systems

Accessories | wall, corner and door protection

GRADUS

Our products are installed in many prestigious buildings. With customers ranging from designers & architects to contractors and building owners you can trust Gradus to provide products that work.



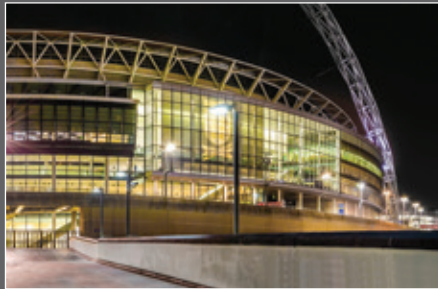
Queen Elizabeth University Hospital,
Glasgow



Liverpool Library, Liverpool



Royal Victoria Infirmary, Newcastle



Wembley Stadium, London



The Christie, Manchester



Kent Institute of Medicine & Surgery,
Maidstone

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Why Gradus

In 1998 Gradus introduced wall protection systems to complement its contract interior portfolio and since that time has demonstrated impressive growth in healthcare, education and commercial office applications.

With significant project expertise and a full installation service, Gradus is able to provide expert support and advice from design through to specification and installation.

2017 sees Gradus launch a new range of PVC-u wall protection profiles, including wall cladding, wall guards, handrails and corner guards. These new profiles, combined with the existing ranges of hygienic wall cladding, stainless steel products, heavy duty rubber and timber, offer one of the most comprehensive wall protection ranges on the market.



Gradus is the largest UK manufacturer of wall protection profiles. Gradus controls the design of profiles from initial concept through to finished product, including specialist CAD design and the manufacture of tooling. This ensures that quality is maintained and provides customers with an efficient, flexible and fast service.



FM 10763



EMS 59511



BS OHSAS
18001:2007
IV 18/18493



CHAS.co.uk





Services

CPD

Gradus offers comprehensive RIBA assessed CPD seminars covering specification, legislation, safety, performance and aesthetics.

Website

Visit www.gradus.com to access all products and services and to access downloads such as AutoCAD drawings, NBS Specifications, BIM Objects, maintenance and installation instructions.

Gradus Product Showcase

An informal opportunity for Gradus to bring an exhibition of products directly to you. Flexible and informative, they can be arranged at a date and time to suit you.

Project Management

Gradus Contracts works closely with a wide range of end users and main contractors to provide a professional, expert service to its clients. The contracts team will manage the project from survey and specification through to installation and hand over, removing risk and saving time for the customer.

A full supply and installation service is offered for all Gradus protection systems.

Samples

Call Gradus or build a design board online and get all the samples you need within 24 hours.

Tel: 01625 428922
or email: imail@gradus.com

An introduction to wall protection

Wall protection products are designed to protect interior building surfaces from damage caused by the general flow of wheeled and pedestrian traffic.

Specifying wall protection can help to reduce the levels of everyday damage to building interiors, minimise the need for on-going repair and maintenance, reduce life cycle costs, improve building accessibility and enhance the long term appearance of building interiors.

Why use Gradus wall protection systems?

Gradus wall protection systems comprise a range of complementary products designed to reduce damage to surfaces by absorbing and deflecting impact. Within a typical commercial building, a combination of products is often necessary to effectively protect interiors from damage which can occur through a multitude of sources including pedestrians, wheelchairs, beds, chairs, trolleys, luggage and other mobile equipment.

Benefits of specifying Gradus wall protection include:

- Reduced maintenance, repair and refurbishment costs through prevention of damage to wall coverings, paintwork, plasterwork, woodwork and doors.
- Improved aesthetics and design can be achieved by utilising products that are designed to offer protection in colours and finishes that complement practically any design scheme.
- All colours within the range have been measured for Light Reflectance Values to assist with ensuring visual contrast is achieved where necessary.
- Full supply and installation service offer through our experienced contracts department.
- Products are designed to help meet specification guidelines including Building Regulations 2010 - Approved Document M and Approved Document K; BS8300:2009+A1:2010; HBN 00-10, HBN 00-09 and HBN 00-03 (see page 70 for details).

Typical Causes of Damage



Trolleys



Luggage



Wheelchairs



Beds

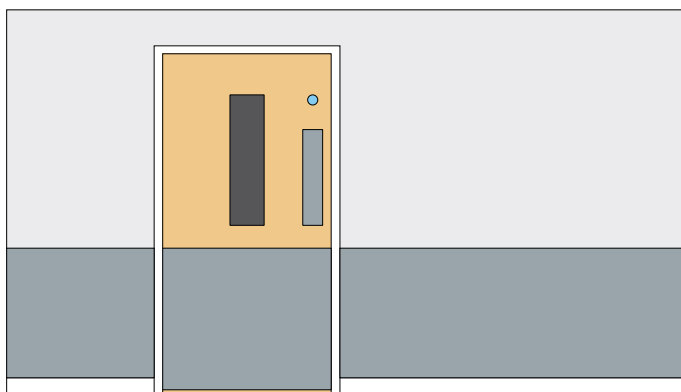


Pedestrians



Vehicles

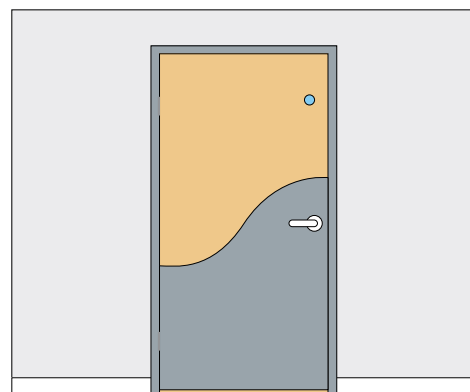
Gradus Product Guide



Wall Cladding Systems

Gradus wall cladding systems are available in a range of sizes, colours, finishes and textures to accommodate specification requirements. Bespoke cutting and design options available. Finishing options include thermoforming, a range of trims, colour matched silicone sealant and weld rod.

See Section 1 - page 22.



Door Protection

Doors and door frames are vulnerable to damage due to the constant flow of pedestrian and wheeled traffic. Gradus offers a variety of door protection solutions to prevent damage, conceal existing damage and coordinate or contrast with other elements of the building.

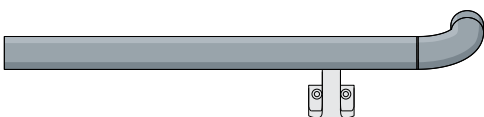
See Section 5 - page 60.



Wall Guards & Wall Strips

Gradus wall guards and wall strips are available in various styles and sizes to correspond to the needs of different environments. Wall guards are robust in design and used in areas where frequent levels of impact occur. Wall strips are a cost effective alternative to protect surfaces from scuffs and scrapes.

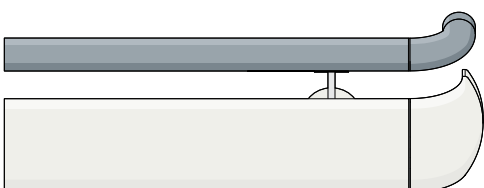
Section 2 - page 33.



Handrails & Combination Rails

Gradus handrails & combination rails are designed to offer pedestrian guidance and support, in addition to a degree of surface protection against damage caused by wheeled traffic.

Section 3 - page 43.



Dual-Rail

The Gradus Dual-Rail combines a handrail and wall guard linked together with a specialist bracket to provide an ideal solution for environments where pedestrian support is required in addition to protection against impact.

See Section 3 - page 43.



Bed Head Protectors

Gradus bed head protectors provide maximum protection against damage caused by frequently moved beds. They are designed to help prevent damage to walls and wall mounted equipment from beds that are continuously moved up and down as well as in and out of busy hospitals and nursing homes.

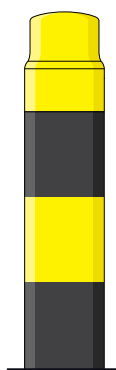
See Section 2 - page 33.



Corner Protection

Corners are one of the most vulnerable areas of a building and when left exposed are often damaged from everyday wheeled and pedestrian traffic. Gradus corner guards are available in a variety of material types, styles and heights and are ideal for reducing maintenance costs and maintaining interior appearances.

See Section 4 - page 53.



Floor Mounted Protection

Gradus provide a range of floor rails, posts and bollards to protect building interiors and equipment from potential damage in both front and back-of-house applications. These products provide both a visual and physical barrier to impact and also help to minimise damage when impact does occur.

See Section 6 - page 65.

Selecting the right product

This section demonstrates typical applications of wall protection products within commercial building environments and uses illustrative examples of how wall protection can be specified in various zones within a building. These examples can be adjusted to coordinate with the requirements of specific environments or design themes in a range of market sectors including healthcare, education, hospitality, care home, commercial office and retail.

Building Zones

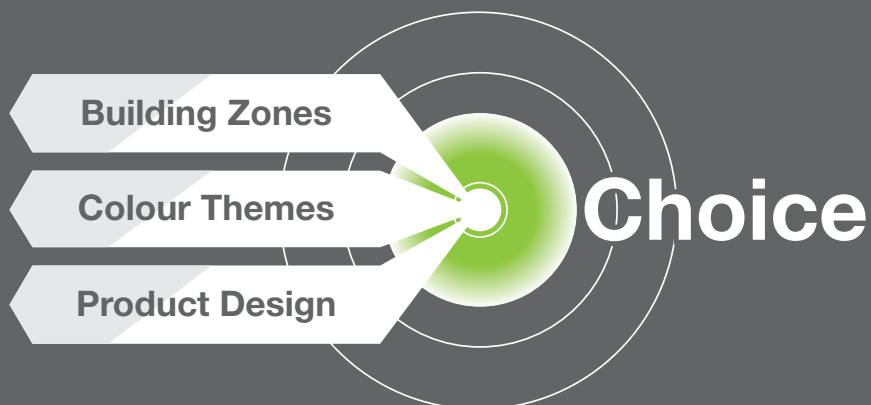
- Receptions & Entrances
- Corridors & Circulation Areas
- Hospital Accommodation
- Clinical Areas
- Commercial Kitchens
- Accommodation
- Offices & Classrooms
- Back-of-house

Colour Themes

Gradus wall protection products are available in an extensive range of colour, material and design options.

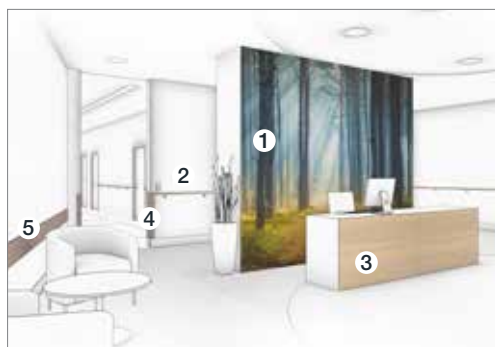
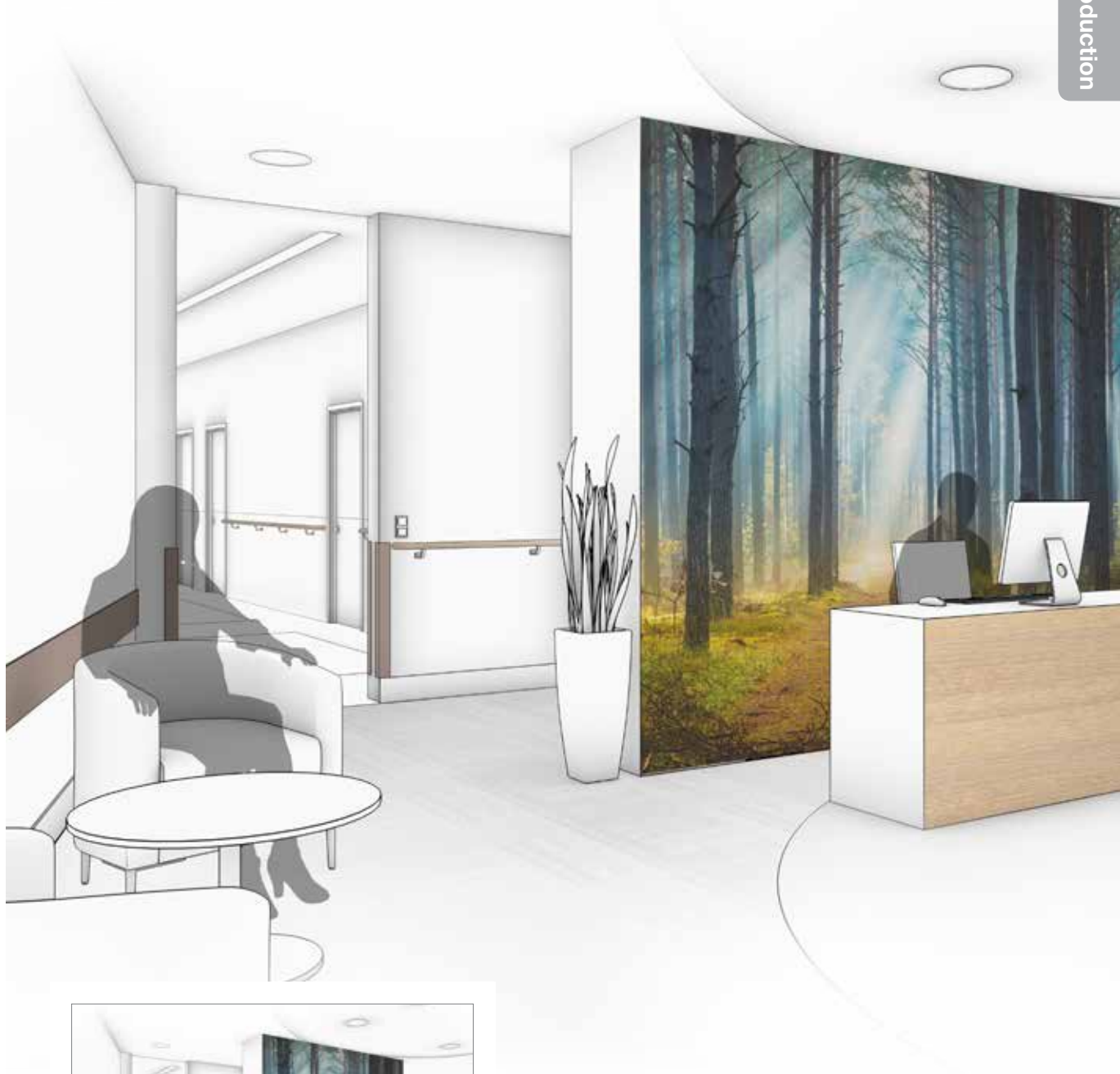
Product Design

A full range of product options designed to provide functional and aesthetic solutions for working environments.



Receptions & Entrances

The design and accessibility of a main entrance is essential in helping to create positive impressions as visitors enter a building. In addition to aesthetics, building entrances also need to be practical in design to facilitate building access and manage the flow of staff, visitors and deliveries.



Example: Reception Area

Waiting areas are often subject to scuffs and scrapes from tables, chairs and other movable objects. Corners and edges are also vulnerable to damage from deliveries and other wheeled traffic entering the building.

1. SureProtect Design Wall Cladding (print option) - p.26
2. Timber Handrail - p.48
3. SureProtect Design Wall Cladding (wood effect) - p.26
4. Standard PVC-u Corner Guard - p.56
5. Wall Strip - p.39

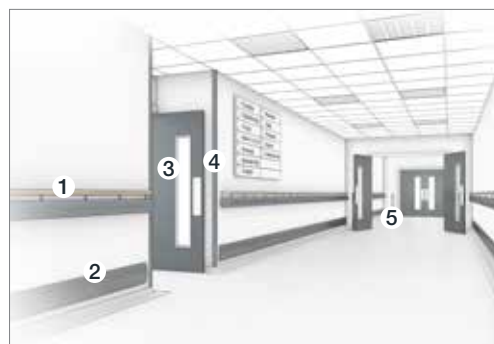
Corridors & Circulation Areas

Corridors and circulation areas are amongst the busiest parts of a building and often have to deal with a heavy flow of both pedestrian and wheeled traffic, which then filters into other parts of the building. This high level of activity often requires a robust protection system in place to protect vulnerable walls and corners from scuffs, scrapes and direct impact damage.



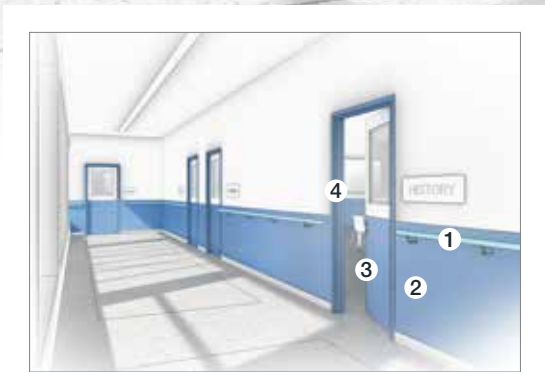
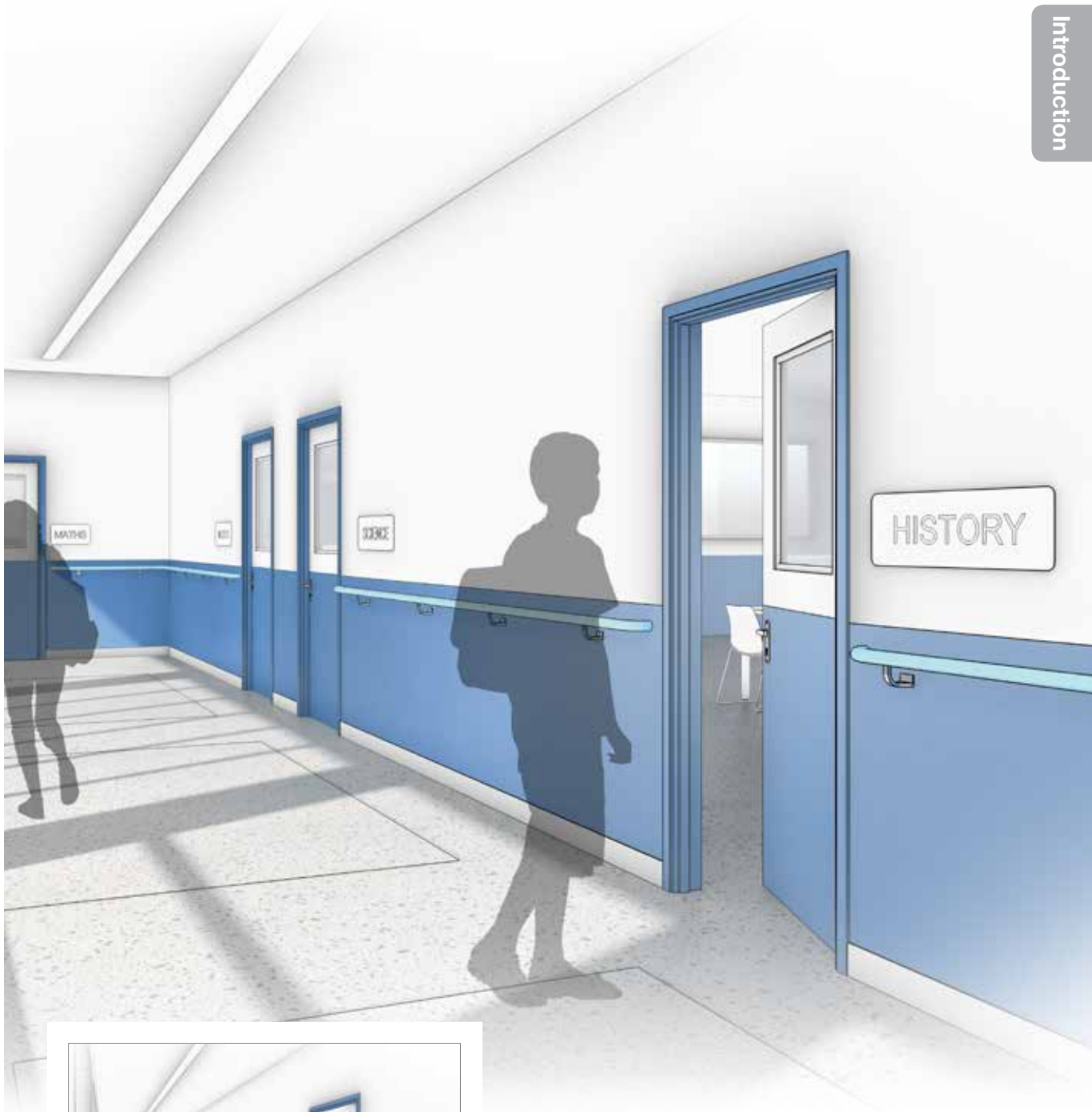
Example: Hospital Corridor

Pedestrian foot traffic including patients, visitors and staff; and wheeled traffic including wheelchairs and other mobility assistance devices, beds, trolleys, laundry carts and mobile equipment are all potential causes of damage in hospital corridors.



1. Dual Rail - p.50
2. Wall Guard - p.36
3. Door Face Protection - p.61
4. High Impact PVC-u Corner Guard - p.55
5. Stainless Steel Bollard - p.67

Corridors & Circulation Areas



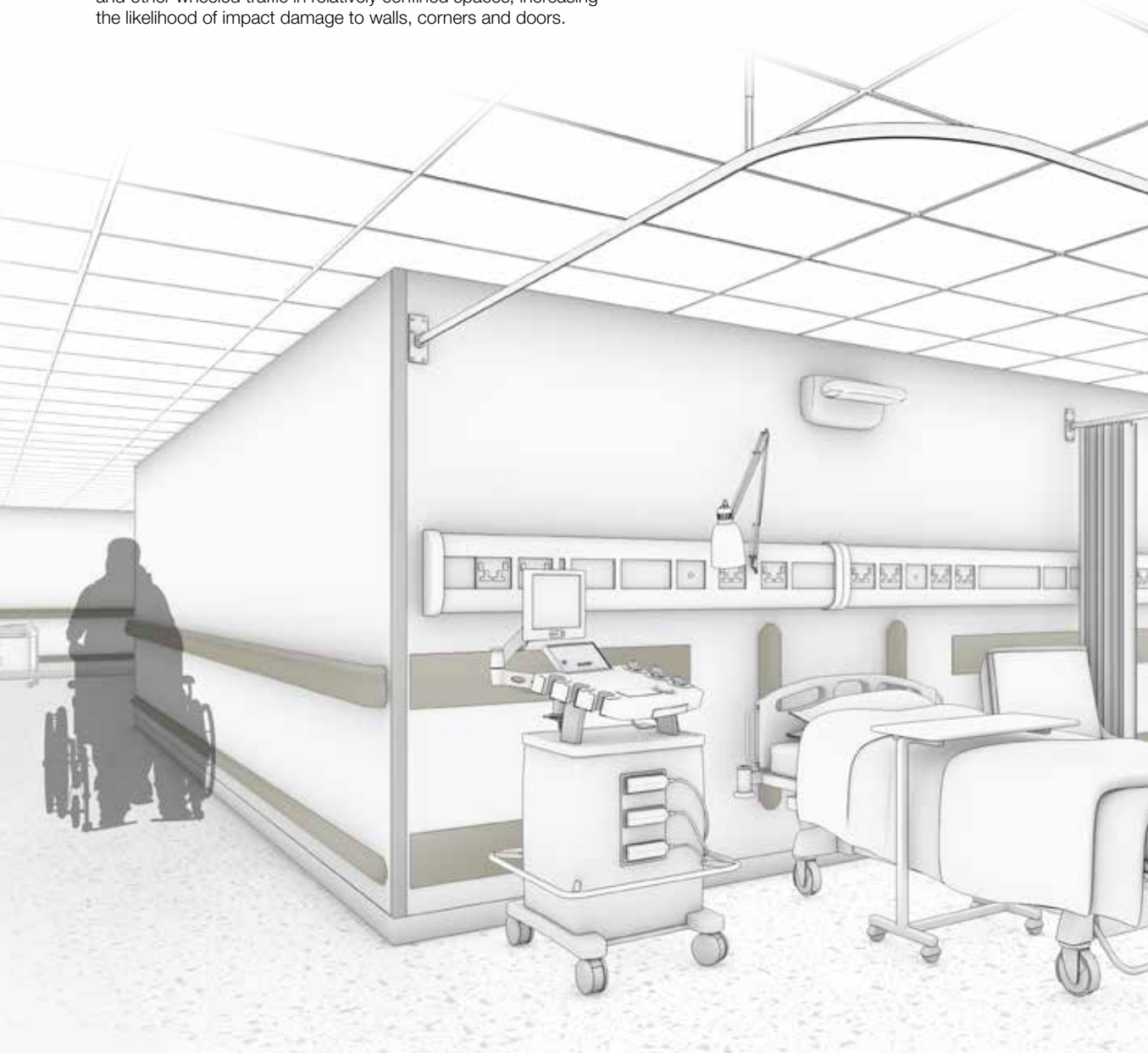
Example: School Corridor

Scuffs and scrapes from students with school bags leaning against walls and generally navigating throughout the building are common causes of damage in school corridors.

- 1. Handrail - p.46
- 2. SureProtect Endure Wall Cladding - p.24
- 3. Door Face Protection - p.61
- 4. Door Frame Protection - p.64

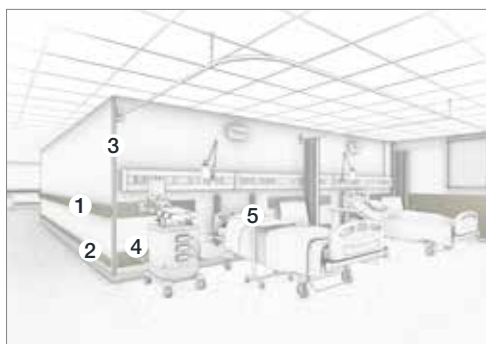
Hospital Accommodation

Ward and hospital accommodation is subject to high volumes of activity. Hospital staff are regularly tasked with manoeuvring beds, wheelchairs, mobile medical equipment, service trolleys and other wheeled traffic in relatively confined spaces, increasing the likelihood of impact damage to walls, corners and doors.



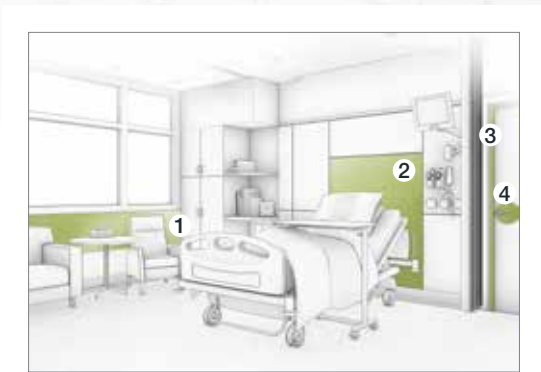
Example: Ward

Hospital patients are regularly wheeled in and out of wards in wheelchairs and mobile beds which risk gouging wall surfaces if a collision were to occur. Other typical causes of damage include mobile medical equipment and service trolleys.



1. Combination Rail - p.52
2. Wall Guard - p.38
3. High Impact PVC-u Corner Guard - p.55
4. Wall Strip - p.39
5. Bed Head Protectors - p.42

Hospital Accommodation



Example: Hospital Room

Typical causes of damage: hospital beds are frequently moved and adjusted to accommodate patients which can cause scuffs and scrapes, whilst other movable objects such as visitor chairs and tables can cause similar damage.

- 1. SureProtect Endure Wall Cladding (rubrail) - p.24
- 2. SureProtect Endure Wall Cladding - p.24
- 3. Door Frame Protection - p.64
- 4. Door Face Protection - p.61

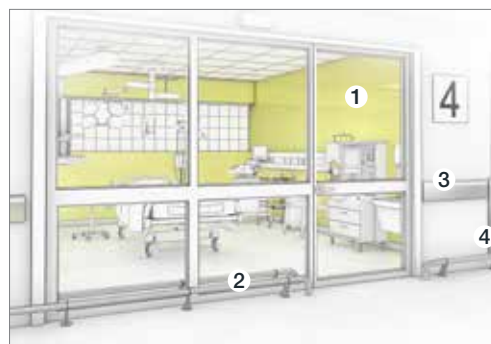
Clinical Areas

Clinical environments require impervious surfaces that are smooth and easy-to-clean, with a resistance to impact damage. A further consideration when specifying building materials in clinical environments are that they will not be physically affected by cleaning chemicals.



Example: Intensive Care Unit

Strict hygiene standards in intensive healthcare environments require robust building materials that can withstand intensive cleaning. Mobile medical equipment is frequently moved around in ICU areas, increasing the potential for damage.



1. SureProtect Pure Wall Cladding - p.28
2. Stainless Steel Floor Rail - p.66
3. Stainless Steel Wall Guard - p.40
4. Stainless Steel Corner Guard - p.58

Commercial Kitchens

Commercial kitchens and food preparation areas require frequent and thorough cleaning to maintain food hygiene standards. Smooth and impervious surfaces are recommended for kitchen walls as an alternative to traditional ceramic tiles and grouting that can harbour bacteria and crack under impact.



Example: Commercial Kitchen

Busy kitchens and canteens are routinely exposed to bacteria and therefore require rigorous cleaning schedules. Movable equipment and catering trolleys are also a potential cause of damage.

1. SureProtect Pure Wall Cladding - p.28
2. Stainless Steel Wall Guard - p.40
3. Stainless Steel Door Face Protection (pushplate) - p.61
4. Stainless Steel Door Face Protection (kickplate) - p.61
5. Stainless Steel Corner Guard - p.58

Accommodation

Wall, door and corner protection specified for bedroom accommodation is often required to integrate with the design theme of the room whilst protecting the interior from everyday wear and superficial damage. It is important to find a balance between functionality and aesthetics.



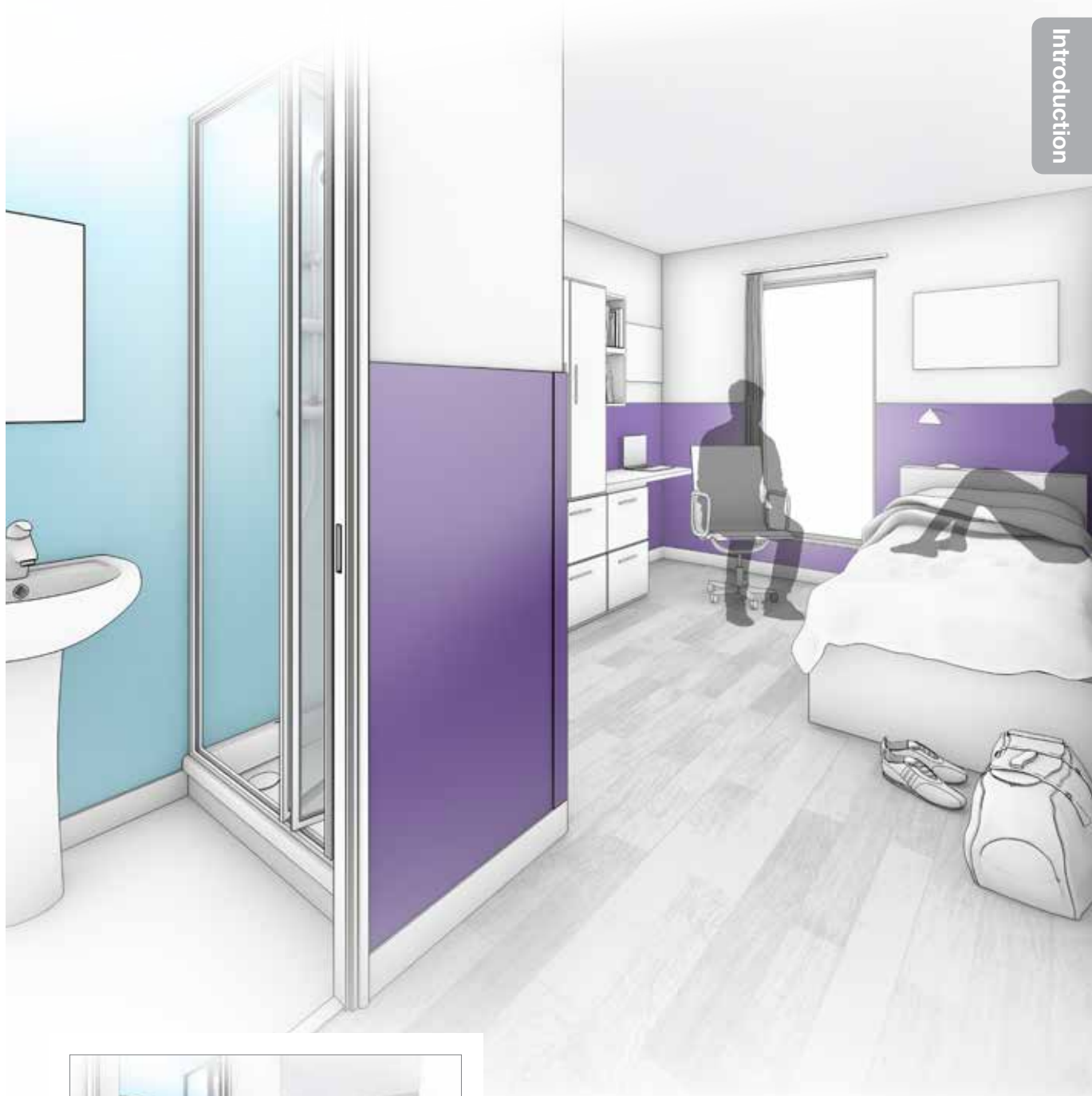
Example: Care Home Bedroom

Furniture, wheelchairs and other mobility assisting equipment as well as trolleys and equipment used by staff can all be causes of damage.



1. SureProtect Endure Wall Cladding (rubrail) - p.24
2. SureProtect Endure Wall Cladding - p.24
3. Door Face Protection - p.61
4. Handrail - p.46
5. Standard Corner Guard - p.56
6. SureProtect Pure Wall Cladding (splash back) - p.28

Accommodation



- 1. SureProtect Pure Wall Cladding - p.28
- 2. SureProtect Endure Wall Cladding - p.24
- 3. Standard Corner Guard - p.56

Example: Student Accommodation

Typical causes of damage include general wear from movable objects such as luggage and furniture scuffing lower sections of wall space.

Offices & Classrooms

Offices, classrooms, meeting rooms and other working environments are typically required to be practical in design and offer a level of protection from everyday scuffs and scrapes. Wall protection products can be utilised to encourage engagement and improve moral by creating stimulating and vibrant spaces using contemporary design themes.



Example: Classroom

Walls and corners are often subject to localised damage caused by students leaning or pushing chairs and tables against walls. Damage is generally limited to scuffs and scrapes from everyday pedestrian traffic and movable objects within the room.



1. Door Face Protection - p.61
2. Stainless Steel Door Face Protection (pushplate) - p.61
3. Stainless Steel Door Face Protection (kickplate) - p.61
4. SureProtect Endure Wall Cladding - p.24

Back-of-house

Back-of-house environments including service corridors, loading bays and underground car parks, can be at risk of extensive damage caused by wheeled and vehicular traffic. This level of traffic often requires a robust solution to protect buildings and equipment from damage whilst also helping to improve pedestrian safety.



1. Rubber Corner Guard - p.59
2. Rubber Wall Guard - p.41
3. Handrail System (contact Gradus for information)
4. Steel Core Protection Post - p.68
5. Aluminium Chequer Plate - p.32

Example: Service Area

Wheeled traffic such as industrial bins and carts are capable of causing significant damage when accidental collisions occur. Motorised traffic including delivery vans and motorised trolleys are also potential hazards in service areas, where vehicles are operating in confined areas.

Colour Selection Guide

Gradus wall protection products are available in a wide range of colours to suit the requirements of most interior design schemes.

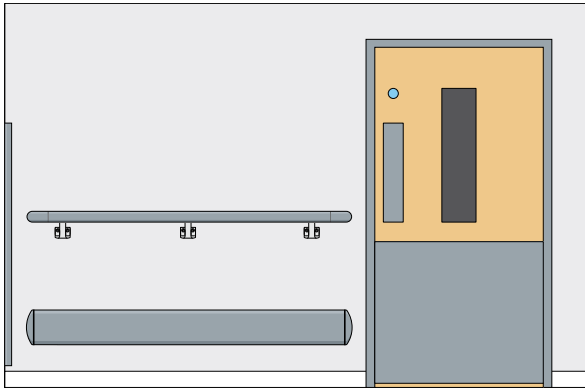
Improving access to buildings for all users in line with the Equality Act 2010 is fundamental and specifiers are using as many tools as possible to ensure that buildings are designed or refurbished in order to create an inclusive environment. Studies, such as Project Rainbow, have identified that colour and contrast can provide designers with a mechanism for highlighting critical surfaces and special features, and can provide the basis for wayfinding for visually impaired people as well as improving the built environment for people with normal vision.

Products can be selected to either visually contrast with surrounding wall surfaces or to blend in with the décor. The type of building, the standards and the types of products being used will all influence the selection of colour.

All relevant Gradus wall protection colours have been measured to provide Light Reflectance Values (LRVs) in order to provide the specifier with the information to ensure a suitable contrast is achieved. Colours selected should have an LRV that is 30 points different from the surrounding surface. (Note: all Gradus colours have been measured using the CIE Y value in accordance with BS 8493:2008 + A1:2010)

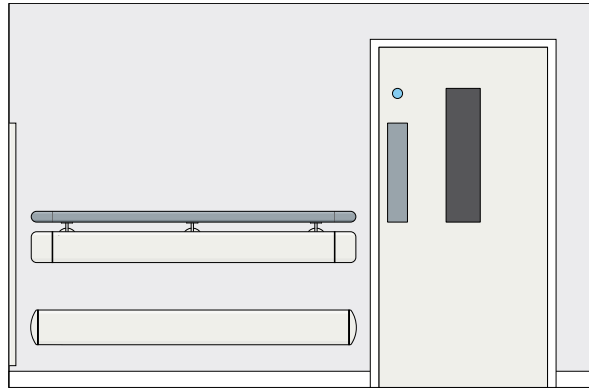
Information on colour selection is detailed below and is based on guidance from Approved Documents M & K of The Building Regulations 2010, BS8300:2009+A1:2010, HBN 00-04 and the DSDC (Dementia Services Development Centre) (see page 70 for further details).

Contrast



- Handrails/Dual-Rail/Combination Rails – need to be easily identified and located for support and wayfinding. Particularly important in healthcare or elderly care environments where there is generally a higher percentage of users with visual impairments.
- Corner guards – can be used to highlight corners and building elements such as pillars that project into walkways in order to create safe navigation.
- Wall Guards – contrasting colours can be used as navigation aids or to denote different departments within a building.
- Wall Cladding - wall surfaces should visually contrast with the both floor and ceiling colours in order that the size and shape of the room can be accurately interpreted by users with visual impairments.
- Door & frame protection – colour can be used to make doors stand out for access and navigation.

Blend



- Wall guards – colours that match the wall provide a less institutional feel, reduce visual interference and avoid confusion in people with visual impairments.
- Corner guards – can provide protection without detracting from the interior décor.
- Door & frame protection – blending colours can be selected to disguise building elements e.g. blend doors into the background in hospital environments where doors are usually locked or are for staff use only, so as not to attract patients or building users.
- Dual-Rail – allows the handrail element to be selected to contrast with the background whilst the wall guard can be blended with the background.

Wall Protection Colour Availability

| Colour | Page | SureProtect Cladding | | | Handrails, Dual Rail & Combination Rail | | | | | | | | Wall Guards & Strips | | Corner Guards | | BHP | |
|-----------------------|------|----------------------|---------------------------------------|--------|---|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------------|----------------|-----------------------|-----------------------------|----------------------------|------------------|
| | | Pure (Hygienic) | Endure - Sheet, Kickplates & Rubrails | Design | Handrail SHR40P | Handrail SHR40W | Handrail SHR40S | Handrail THR450 | Dual Rail D200P | Dual Rail D200T | Dual Rail D200W | Dual Rail D200S | Combination Rail CHR160 | WGS200, WGA100 | WGS125 WST150, WST200 | CGH5090, CGH7590 & CGH75135 | CGS2590, CGS5090 & CGS7590 | Adjustable-angle |
| 001 Chalk | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 031 Alum | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 032 Flint | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 004 Granite | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 011 Pebble | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 002 Gravel | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 035 Hessian | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 003 Clay | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 014 Cinnamon | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 009 Sienna | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 010 Bark | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 005 Shale | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 006 Ivory | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 007 Wicker | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 008 Sand | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 013 Greige | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 033 Slate | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 036 Black | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 021 Straw | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 022 Apricot | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 027 Melon | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 028 Poppy | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 034 Rose Quartz | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 015 Lavender Grey | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 030 Iris | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 029 Garnet | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 016 Glacier | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 018 Azure | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 017 Bluebell | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 020 Denim | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 024 Bamboo | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 023 Meadow | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 025 Emerald | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| 019 Ultramarine | | • | • | | • | | | | • | • | • | • | • | • | • | • | • | • |
| White | | • | • | | | | | | | | | | | | | | | |
| Platinum | | • | • | | | | | | | | | | | | | | | |
| Champagne | | • | • | | | | | | | | | | | | | | | |
| Peppermint | | • | • | | | | | | | | | | | | | | | |
| Iceberg | | • | • | | | | | | | | | | | | | | | |
| Pearl | | • | • | | | | | | | | | | | | | | | |
| Blueberry | | • | • | | | | | | | | | | | | | | | |
| Iron | | • | • | | | | | | | | | | | | | | | |
| Sorbet | | • | • | | | | | | | | | | | | | | | |
| Olive | | • | • | | | | | | | | | | | | | | | |
| Sage | | • | • | | | | | | | | | | | | | | | |
| Onyx | | • | • | | | | | | | | | | | | | | | |
| Fuchsia | | • | • | | | | | | | | | | | | | | | |
| Spice | | • | • | | | | | | | | | | | | | | | |
| Chilli | | • | • | | | | | | | | | | | | | | | |
| Plum | | • | • | | | | | | | | | | | | | | | |
| 060 Maple | | | | • | | • | | | | | | | | | | | | |
| 061 Beech | | | | • | | • | | | | | | | | | | | | |
| 062 Light Oak | | | | • | | • | | | | | | | | | | | | |
| 065 Stripped Pine | | | | • | | • | | | | | | | | | | | | |
| 067 Wenge | | | | • | | • | | | | | | | | | | | | |
| 068 Smoky Cedar | | | | • | | • | | | | | | | | | | | | |
| 069 Brown Cedar | | | | • | | • | | | | | | | | | | | | |
| 080 Silver | | | | • | | • | | | | | | | | | | | | |
| 081 Copper | | | | • | | • | | | | | | | | | | | | |
| 082 Gold | | | | • | | • | | | | | | | | | | | | |
| 051 Composite | | | | • | | • | | | | | | | | | | | | |
| 050 Brushed Aluminium | | | | • | | • | | | | | | | | | | | | |
| 052 Light Concrete | | | | • | | • | | | | | | | | | | | | |
| 053 Medium Concrete | | | | • | | • | | | | | | | | | | | | |
| 401 Ash | | | | | | | • | | • | | | | | | | | | |
| 402 Oak | | | | | | | • | | • | | | | | | | | | |
| 403 Maple | | | | | | | • | | • | | | | | | | | | |
| 406 Sapele | | | | | | | • | | • | | | | | | | | | |

Colour Availability - PVC-u Profiles & SureProtect Endure

Standard Colours

34 standard colours provide a colour choice to suit virtually any design scheme, from healthcare and education environments through to leisure and commercial office applications. Refer to colour chart on page 19 for details of specific product availability.

Natural

| | | | |
|---|---|--|---|
|  |  |  |  |
| ⊕ 001 Chalk LRV: 87.51 NCS: 0500-N | 031 Alum LRV: 71.91 NCS: 1000-N | 032 Flint LRV: 43.70 NCS: 3000-N | 004 Granite LRV: 24.07 NCS: 5502-B |
|  |  |  |  |
| 011 Pebble LRV: 59.08 NCS: 2005-R80B | 002 Gravel LRV: 53.71 NCS: 2502-Y | 035 Hessian LRV: 35.79 NCS: 4010-Y30R | ⊕ 003 Clay LRV: 33.86 NCS: 4000-N |
|  |  |  |  |
| 014 Cinnamon LRV: 42.30 NCS: 3005-Y80R | 009 Sienna LRV: 26.67 NCS: 4010-Y70R / 4005-Y70R | 010 Bark LRV: 16.61 NCS: 6005-Y80R | ⊕ 005 Shale LRV: 17.88 NCS: 6500-N / 6502-Y |
|  |  |  |  |
| ⊕ 006 Ivory LRV: 81.98 NCS: 0505-Y30R | 007 Wicker LRV: 70.36 NCS: 0510-Y30R | 008 Sand LRV: 52.26 NCS: 2010-Y30R | 013 Greige LRV: 38.97 NCS: 3005-Y20R |
|  |  | ⊕ Popular colours stocked in depth | |
| 033 Slate LRV: 7.03 NCS: 8005-R80B | 036 Black LRV: 5.08 NCS: 8502-B | | |

Colour



021 Straw
LRV: 75.21
NCS: 0530-Y
/ 0530-Y10R



022 Apricot
LRV: 60.68
NCS: 0550-Y20R



027 Melon
LRV: 38.00
NCS: 1060-Y50R



028 Poppy
LRV: 16.31
NCS: 1080-R



034 Rose Quartz
LRV: 52.08
NCS: 1515-R20B



015 Lavender Grey
LRV: 37.18
NCS: 3010-R60B



030 Iris
LRV: 18.61
NCS: 4040-R50B



029 Garnet
LRV: 10.43
NCS: 4040-R20B



016 Glacier
LRV: 59.27
NCS: 1020-B



018 Azure
LRV: 45.14
NCS: 1040-R90B



017 Bluebell
LRV: 36.50
NCS: 2030-R70B



020 Denim
LRV: 16.91
NCS: 4040-R90B



024 Bamboo
LRV: 54.74
NCS: 1040-G50Y



023 Meadow
LRV: 54.63
NCS: 1030-G20Y



025 Emerald
LRV: 29.53
NCS: 3030-B80G
/ 3030-B70G



019 Ultramarine
LRV: 27.39
NCS: 3040-B20G

Textured Finish

Textured and through coloured to conceal the effects of impact and abrasion.

Colour Matching

Important note: Due to the limitations of the printing process, colours within this catalogue should not be relied upon for colour matching. An accurate colour match can only be achieved by requesting the relevant product sample(s).

Light Reflectance Values

All Gradus wall protection colours have been measured for Light Reflectance and the Value (LRV) is detailed below each colour (values have been measured using the CIE Y value in accordance with BS8493:2008 + A1:2010). LRVs allow tonal contrast to be achieved between different surfaces to highlight features (e.g. handrails or door furniture), identify hazards or provide wayfinding.

NCS Colour References

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Section 1

Wall Cladding Systems

Information on a full range of protective cladding systems covering hygienic, decorative and heavy duty options.

Introduction

Wall cladding provides a durable and defensive layer designed to protect large surfaces from scuffs and scrapes, generally caused by pedestrians and movable objects such as chairs, trolleys and tables.

Gradus offers a choice of wall cladding in a range of materials, colour options and finishes to coordinate with most interior design schemes and can be used in a range of applications.

Bespoke cutting and designs

Selected wall cladding can be cut or formed into rubrails, kickplates & pushplates, door protection, corner protection and other bespoke solutions which enables functionality to be combined with aesthetics (see individual product pages for details). For lead times and quotations for bespoke cutting and forming, contact Gradus Technical Services on 01625 428922.

Benefits of wall cladding

Durability – provides high resistance to impact damage. Selecting products with an embossed finish helps to conceal the effects of impact and abrasion. Recommended products - SureProtect Endure and Aluminium Chequer Plate.

Hygiene – creates an impermeable barrier to moisture and bacteria. Inert materials minimise the growth of bacteria. A smooth, seamless finish is recommended for critical clean areas. Recommended product - SureProtect Pure.

Aesthetics – enhances the appearance of building interiors. Choice to blend or enhance building interiors with a variety of materials, colour options, patterns and designs. Contemporary designs included in the range help to create attractive and stylish interior designs. Recommended product - SureProtect Design.

Product options

Gradus offers a selection of high performance wall cladding systems, offering excellent surface protection and suitable for a wide range of applications.



SureProtect Endure®

- Durable PVC-u solution designed to work as a stand-alone product or can be combined with other Gradus wall protection products to create a more comprehensive wall protection system.
- Through coloured and textured to conceal the effects of impact and abrasion.
- Ideal for busy environments such as corridors and circulation areas, canteens, classrooms and waiting areas.



SureProtect Design®

- PVC-u sheet featuring modern, stylish designs to enhance building interiors whilst still offering excellent surface protection.
- Ideal for applications where aesthetics are important such as reception areas, leisure facilities, hotel lobbies, retirement homes and university campuses.



SureProtect Pure®

- Comprehensive, hygienic PVC-u cladding system.
- Smooth, easy to clean surface creates an impermeable barrier to moisture and bacteria whilst also offering excellent resistance to impact damage.
- Ideal for: operating theatres, healthcare environments, commercial kitchens, sport and leisure facilities, food and pharmaceutical manufacturing facilities, laboratories, dentist practices, veterinary surgeries and bathrooms.



Aluminium Chequer Plate

- Robust, durable material featuring embossed chequer pattern to conceal the effects of any surface damage caused by wheeled traffic. Suitable for both interior and exterior environments.
- Ideally suited for use in areas subject to frequent, heavy wheeled traffic e.g. service corridors, loading areas and car parks.

SureProtect Endure® Wall Cladding



SureProtect Endure PVC-u sheet is through-coloured and textured to conceal the effects of impact and abrasion. It can be specified as a stand-alone product or be combined with other Gradus wall protection products to create a comprehensive protection system.

Specifying SureProtect Endure helps to reduce the need to repair and re-paint wall surfaces and with minimal maintenance, optimises the appearance retention of the building interior. It is commonly specified in environments exposed to high levels of pedestrian traffic such as corridors and circulation areas, canteens, classrooms and waiting areas.



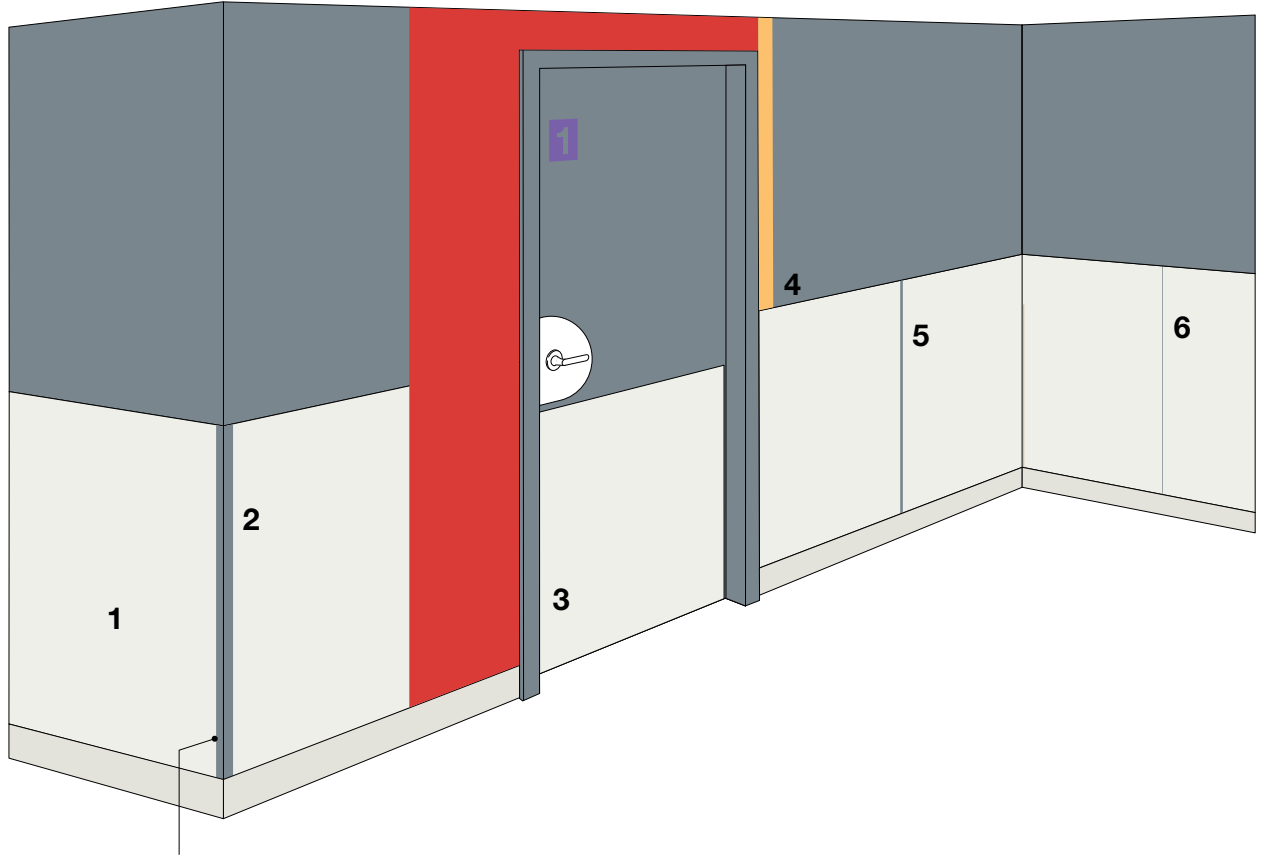
Information

- Supplied in sheet form with the option of finishing trims, silicone sealant, weld rod and thermoforming
- Option to cut or form into rubrails, kickplates and pushplates, door protection, corner protection and other bespoke solutions
- Reaction to fire classification: B-s3, d0
- Resistance to cleaning chemicals
- Textured PVC-u sheet available in a choice of 34 colours. See pages 20-21

Sheet dimensions

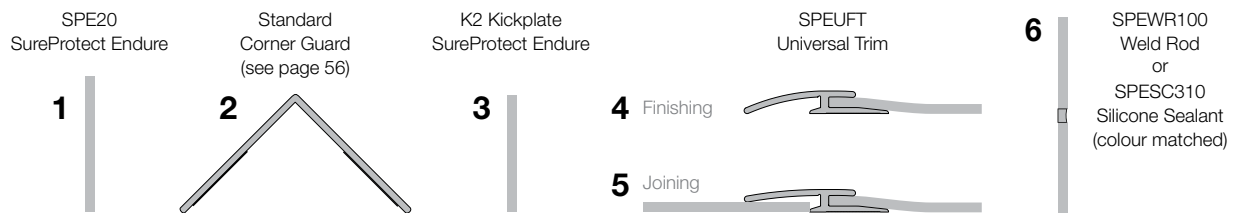
- Thickness – 2mm
- Sheet sizes – 3m x 1.3m
- Bespoke sizes and shapes also available – contact Gradus for more information

Installation example



Section 1

As an alternative to corner guards, SureProtect Endure can also be thermoformed to provide a flush, seamless finish.



Bespoke cutting options

- R2 Rubrails
 - bevelled top and bottom, available in 3m lengths
- K2 Kickplates and Pushplates
 - bevelled on all edges, variable width and height options
- Thermoformed corner protection
- Bespoke designs
- Door protection (see page 60)

SureProtect Design® Wall Cladding



Modern and stylish in appearance, SureProtect Design highlights building interiors whilst still offering excellent surface protection. Finishes include wood effects, metals and bespoke prints to accommodate any interior design theme.

Ideal for applications where aesthetics is important such as reception areas, leisure facilities, hotel lobbies, retirement homes and university campuses.

Information

- Supplied in sheet form with the option of silicone sealant, weld rod and thermoforming
- Reaction to fire classification: B-s3, d0

Sheet dimensions: Woods & Metals

- Thickness – 2mm
- Sheet sizes - 3m x 1.3m
- Bespoke sizes also available – contact Gradus for more information



Digital Printing - SPD20P

- Print option is made to measure with maximum dimensions of 1.2m x 2.9m
- Gradus can provide a custom cladding solution by digitally printing your photograph/graphic onto the back of the panel.
- Prints can be applied to multiple sheets as a continuous image.

Sheet dimensions

- Thickness – 2mm (1mm option available)



1.2m 1.2m 1.2m 1.2m 1.2m

2.9m

SureProtect Design® - Colour Availability

SureProtect Design Finishes

This range comprises a choice of wood, metal and print effects. These contemporary finishes help to create modern interiors and are an ideal choice for design-led environments such as hospitality, leisure and commercial office.

Woods - SPD20W



060 Maple
LRV: 50.0
NCS: 2020-Y30R



061 Beech
LRV: 40.3
NCS: 3030-Y30R



062 Light Oak
LRV: 35.4
NCS: 3020-Y30R



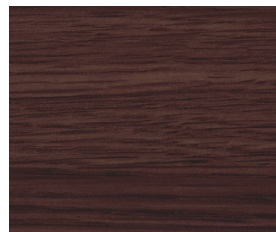
065 Stripped Pine
LRV: 37.0
NCS: 4005-Y20R



069 Brown Cedar
LRV: 18.4
NCS: 6005-Y50R



068 Smoky Cedar
LRV: 10.5
NCS: 7502-B

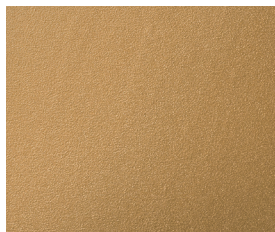


067 Wenge
LRV: 6.6
NCS: 8010-Y50R

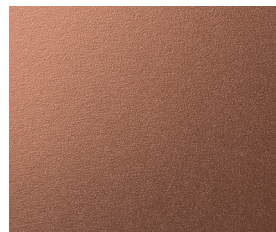
Metals - SPD20M



080 Silver
LRV: 42.4
NCS: 3502-B



082 Gold
LRV: 27.3
NCS: 2030-Y20R



081 Copper
LRV: 20.9
NCS: 5020-Y60R

Section 1

Textured Finish

Textured and through coloured to conceal the effects of impact and abrasion.

Colour Matching

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Light Reflectance Values

All Gradus wall protection colours have been measured for Light Reflectance and the Value (LRV) is detailed below each colour (values have been measured using the CIE Y value in accordance with BS8493:2008 + A1:2010). LRVs allow tonal contrast to be achieved between different surfaces to highlight features (e.g. handrails or door furniture), identify hazards or provide wayfinding.

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SureProtect Pure® Wall Cladding



Specifically developed for areas where cleanliness is a priority, SureProtect Pure creates an impermeable barrier to moisture and bacteria. The smooth, easy to clean surface is an excellent hygienic alternative to ceramic tiles, removing the need for grout which can harbour bacteria. SureProtect Pure is manufactured from PVC-u material that has been extensively tested to ensure suitability in hygienic environments.

The product adheres to guidance set out in The Health Building Note 00-09 and the Food Standards Agency, making it the perfect solution for healthcare environments and commercial kitchens. It is also ideal for sport and leisure facilities, food manufacturing environments, pharmaceutical laboratories, dentist practices, veterinary surgeries and bathrooms.



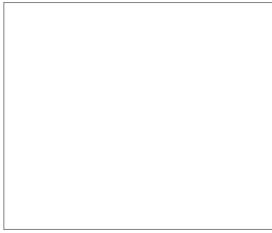
Information

- Smooth PVC-u sheet material in a choice of 16 diverse colour options
- Tested for suitability in a wide range of environments
- Range of trimming and jointing solutions
- A choice of Gradus Grip adhesive solutions (see page 31)
- Reaction to fire classification: B-s3, d0

Sheet dimensions

- Thickness - 2.5mm
- Sheet sizes - 2.44m x 1.22m, 3.05m x 1.22m & 2.50m x 1.22m (for full size details see page 30)
- Bespoke sizes also available – contact Gradus for more information

White - Satin Finish

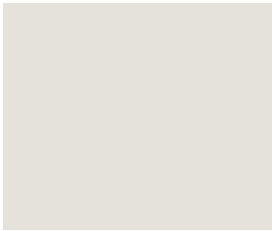


White LRV: 90.87
NCS: S 0300-N

SureProtect Pure Colour Availability

Available in 16 colour options to suit a range of applications. Classic white and cool pastels feature a satin finish and are an excellent choice for clean working environments. A selection of vibrant colours are also available, featuring a high gloss finish for creating bright and engaging environments.

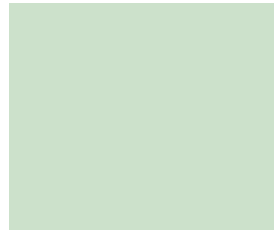
Pastels - Satin Finish



Platinum LRV: 58.81
NCS: S 2002-Y



Champagne LRV: 72.74
NCS: S 1005-Y20R

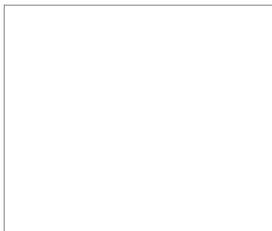


Peppermint LRV: 75.20
NCS: S 0515-G



Iceberg LRV: 65.96
NCS: S 1020-B

Brights - Gloss Finish



Pearl LRV: 89.28
NCS: S 0500-N



Sorbet LRV: 64.08
NCS: S 0570-G60Y



Olive LRV: 47.52
NCS: S 2030-G60Y



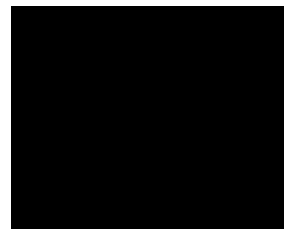
Sage LRV: 41.05
NCS: S 3010-G40Y



Blueberry LRV: 34.37
NCS: S 3030-R90B



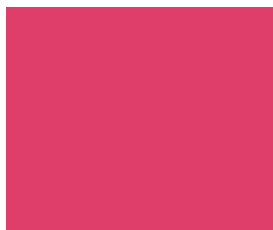
Iron LRV: 14.63
NCS: S 7000-N



Onyx LRV: 4.96
NCS: S 9000-N



Spice LRV: 19.76
NCS: S 2075-Y60R



Fuchsia LRV: 21.51
NCS: S 1070-R20B



Chilli LRV: 11.83
NCS: S 2070-R



Plum LRV: 9.26
NCS: S 4050-R30B

Colour Matching

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Light Reflectance Values

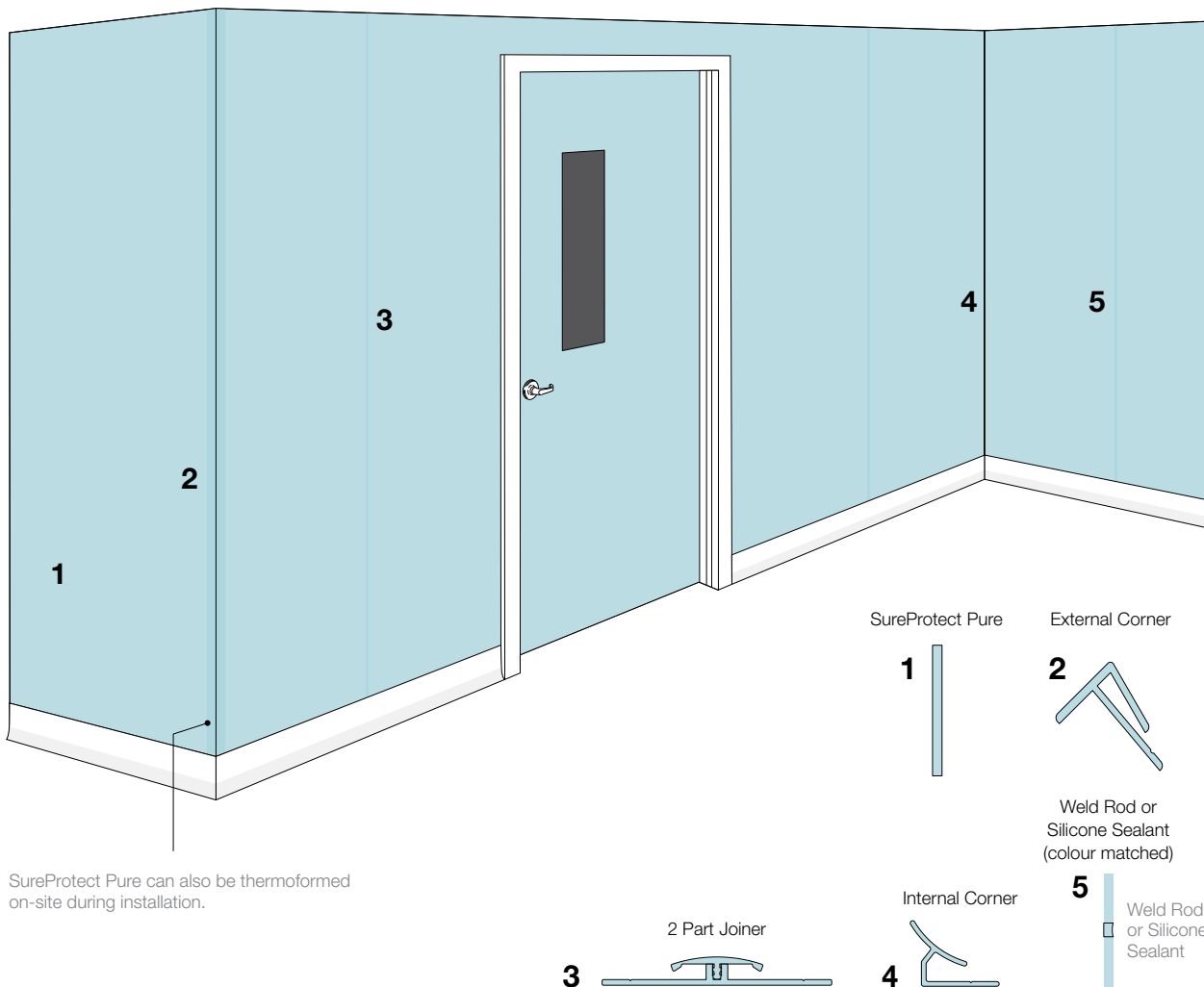
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SureProtect Pure® - Technical Information

Installation example



SureProtect Pure PVC-u Sheet

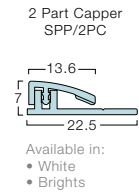
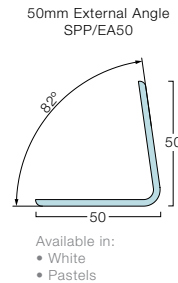
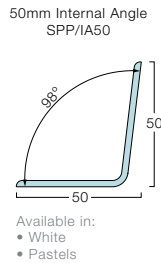
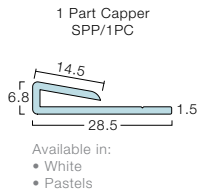
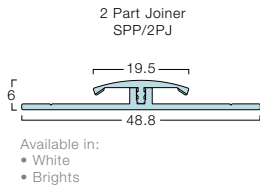
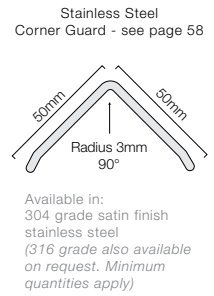
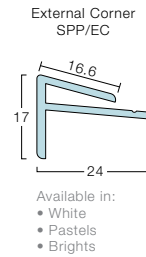
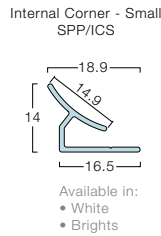
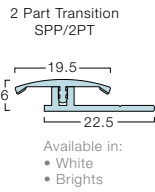
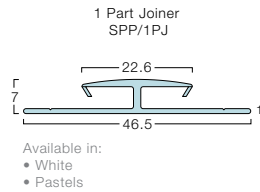
Sheet available in the following sizes.

| Code | Colour Availability | Length | Width | Thickness |
|-------------|---------------------|--------|--------|-----------|
| SPP25W/2440 | White | 2440mm | 1220mm | 2.5mm |
| SPP25W/3048 | White | 3048mm | 1220mm | 2.5mm |
| SPP25P/2440 | Pastels | 2440mm | 1220mm | 2.5mm |
| SPP25P/3048 | Pastels | 3048mm | 1220mm | 2.5mm |
| SPP25B/2500 | Brights | 2500mm | 1220mm | 2.5mm |
| SPP25B/3048 | Brights | 3048mm | 1220mm | 2.5mm |

SureProtect Pure® - Technical Information

Accessories

Length sizes: White and Pastels - 2440mm and 3048mm;
Brights - 2500mm and 3048mm. Other jointing options also available. Details of colour availability listed below.



Silicone Sealant

SC310 - available in all colours

Weld Rod

WR80 - White, Platinum
Champagne (80m coil)
WR50 - Iceberg, Peppermint &
all brights (50m coil)

Double Sided Tape

3mm thickness (50mm x 25m)
2mm thickness (50mm x 40m)

Gradus Grip Adhesive

WGP65 2-part polyurethane
(6.5kg tub)
WGA120 1-part acrylic
(12kg tub)

Performance

SureProtect Pure has been extensively tested to the following standards to ensure suitability in hygienic applications.

Maximum Temperature

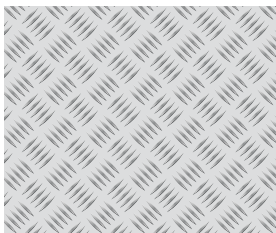
Should not exceed temperatures of 60°C.

| Test | Description |
|--------------|--|
| Bacterial | Tested according to ISO 22196:2011 |
| Food Contact | Meets EU Commission Regulation 10/2011 with regard to food contact |
| Fire | Tested for reaction to fire according to EN 13501-1 achieving Class B-s3, d0 |
| Impact | Tested to BS EN 438-2 that comparatively measures the impact absorption of SureProtect Pure against standard ceramic tile. The test demonstrates that SureProtect Pure PVC-u sheet can withstand significantly higher impact without damage occurring. |

Aluminium Chequer Plate



Aluminium chequer plate wall and door panels are strong and durable, ideal for use in areas subject to frequent, heavy wheeled traffic e.g. service corridors, loading areas and car parks.



Code: CPA2/2500/1250

Aluminium Chequer Plate Corner Guard also available see page 58

Profile

- Panels are light-weight and are both easy to install and keep clean.
- Aluminium chequer plate sheets reduce maintenance costs by eliminating the need to repair and repaint wall surfaces. The embossed chequer pattern conceals the effects of any surface damage caused by wheeled traffic.
- Suitable for both interior and exterior environments.
- Supplied undrilled.
- Note: an exact pattern match cannot be guaranteed.

Sheet dimensions

- Thickness - 2mm
- Sheet sizes - 2500mm x 1250mm

Bespoke options

- Cutting, drilling and custom fabrications. Contact Gradus for further information.

Section 2

Wall Guards, Wall Strips & Bed Head Protectors

Information on protection products designed to offer impact protection against damage caused by wheeled and pedestrian traffic. Includes PVC-u, stainless steel and rubber profiles.

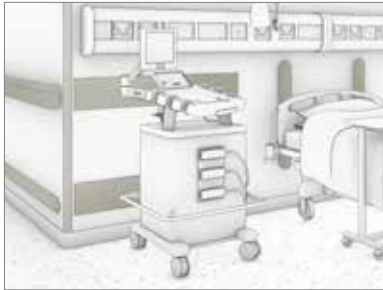
Wall Guards & Wall Strips

Wall guards and wall strips are designed to offer impact protection against damage caused from both pedestrian and wheeled traffic, such as trolleys, wheelchairs, hospital beds, carts and other mobile equipment.

They help reduce maintenance costs and improve the overall aesthetics of a building and are ideal for use in a wide range of environments including education, healthcare, commercial, retail, hospitality and leisure environments.

Product Options

Gradus offers a wide range of wall guards that can be used individually to combat specific types and levels of damage or can be combined for a more comprehensive protection system.



PVC-u Modular Wall Guards & Bed Head Protectors

- Modular in construction. Covers and accessories are replaceable and are through-coloured and textured to conceal the effects of impact and abrasion
- Suitable for use in busy working environments such as hospital circulation areas, wards and corridors to protect against damage from pedestrian and wheeled traffic



Wall Strips

- Cost effective alternative to wall guards to protect against damage
- Designed to protect against rubs and scuffs in areas such as waiting rooms, accommodation, classrooms and canteens which is typically caused by chairs, tables and other movable objects



Rubber Wall Guards

- Robust protection against damage caused by wheeled traffic such as trolleys and carts
- Ideal for use in both interior and exterior environments such as manufacturing, warehousing, loading bays and service corridors



Stainless Steel Wall Guards

- Modern, high-tech finish to enhance interior designs
- Hygienic nature of the profiles makes them ideal for use in environments such as healthcare, food and pharmaceutical preparation and manufacturing facilities

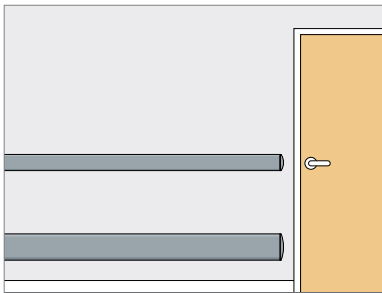
Selecting the correct wall guard

The type and number of wall guards required will be determined by two aspects:

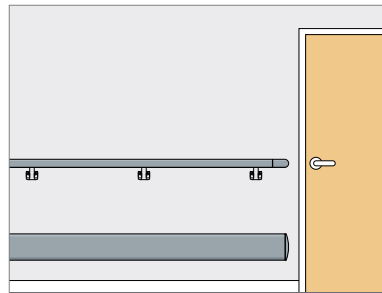
1. The application and environment
2. The level and type of traffic

The damage occurring on walls can vary dramatically from scuffs, scratches and scrapes caused by pedestrian traffic through to gouges and holes caused by heavier, wheeled traffic.

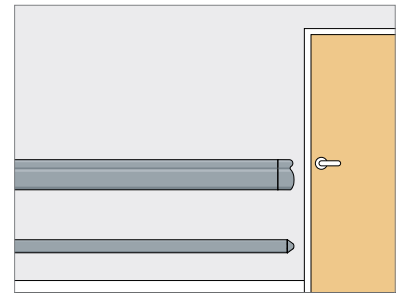
Example Applications



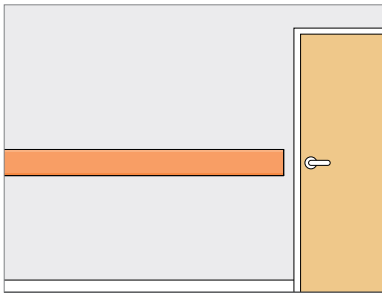
Twin PVC-u Wall Guards
Multi-level direct impact protection
Top: WGS125 - Bottom: WGS200



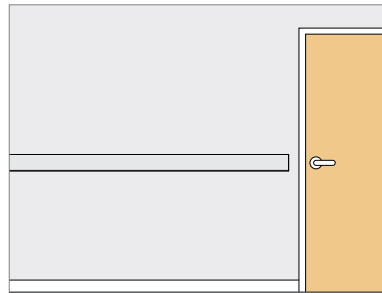
Single WGS200 PVC-u Wall Guard
Localised impact protection
shown with SHR40P Handrail



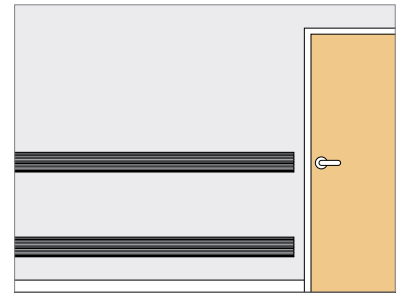
Single WGA100 PVC-u Wall Guard
Indirect impact protection
shown with CHR160 Combination Rail



Single WST200 Wall Strip
Protects against rubs and scuffs



Single SSWG1 Stainless Steel Wall Guard
Offers protection and enhances design



Twin WGR150E Rubber Wall Guards
Robust protection against wheeled traffic

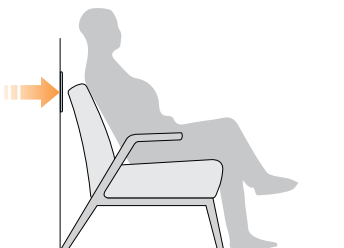
Direct or Indirect Protection

Direct:

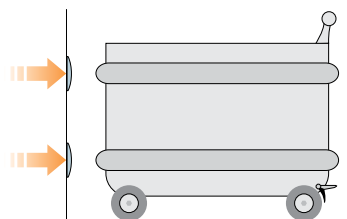
- Points of impact easily identifiable
- Damage is obvious and occurs in predictable patterns
- Commonly specified in existing buildings

Indirect:

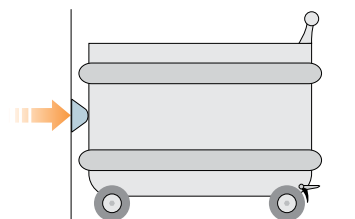
- Damage is difficult to predict
- Types and levels of traffic are unknown
- Commonly specified in new buildings



Direct Protection



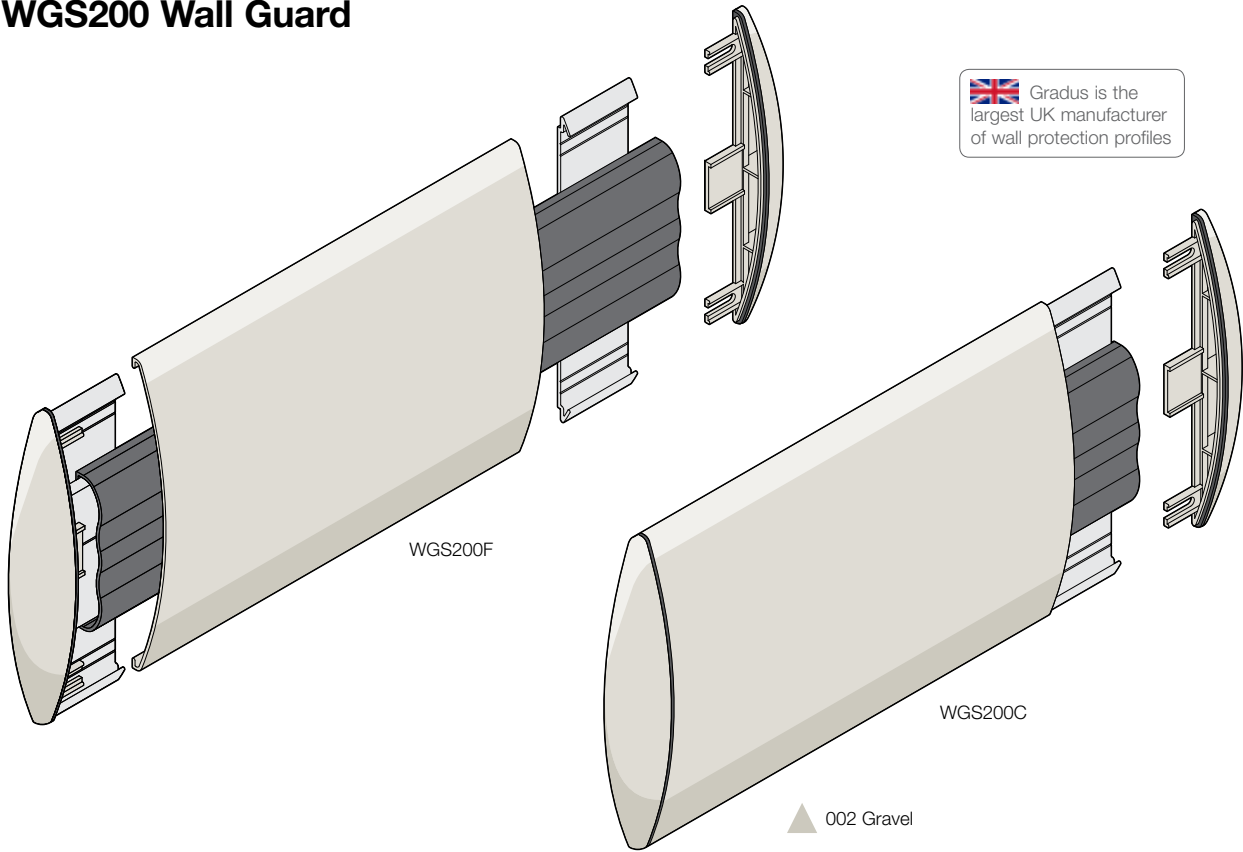
Direct Protection



Indirect Protection

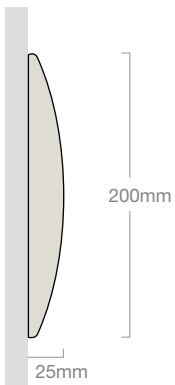
WGS200 Wall Guard

 Gradus is the largest UK manufacturer of wall protection profiles

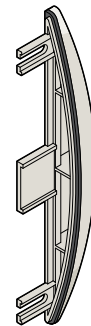


Features

Components



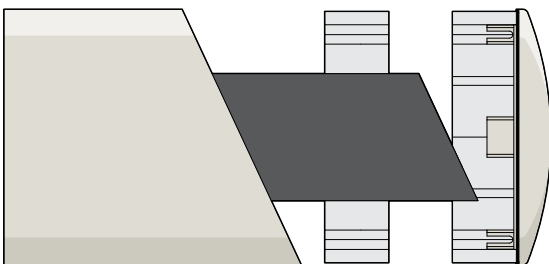
- Modular system comprising PVC-u covers, aluminium retainers and PVC-u accessories
- Replaceable, through coloured, easy-to-clean covers - textured to conceal the effects of impact and abrasion
- Features an internal bumper for additional strength and to absorb and dissipate impact
- Choice of retainers include continuous or aluminium fixing clips (see below)
- Design provides tight fit to wall - minimal dust/dirt trap
- Reveals provide tight, neat joints and contain an anti-microbial agent to inhibit the growth of bacteria
- Colour: Available in 33 colour options - see pages 19-21 for colours and availability
- Size: Supplied in 4m lengths
- Material: PVC-u, Aluminium



WGS2001
universal end cap
(including reveal)

Profile options

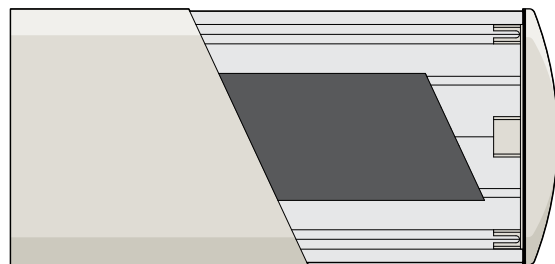
WGS200F



50mm fixing clip retainer:

- Easy to install – ideal for one person
- Cost effective solution
- Suitable for gently undulating substrates

WGS200C

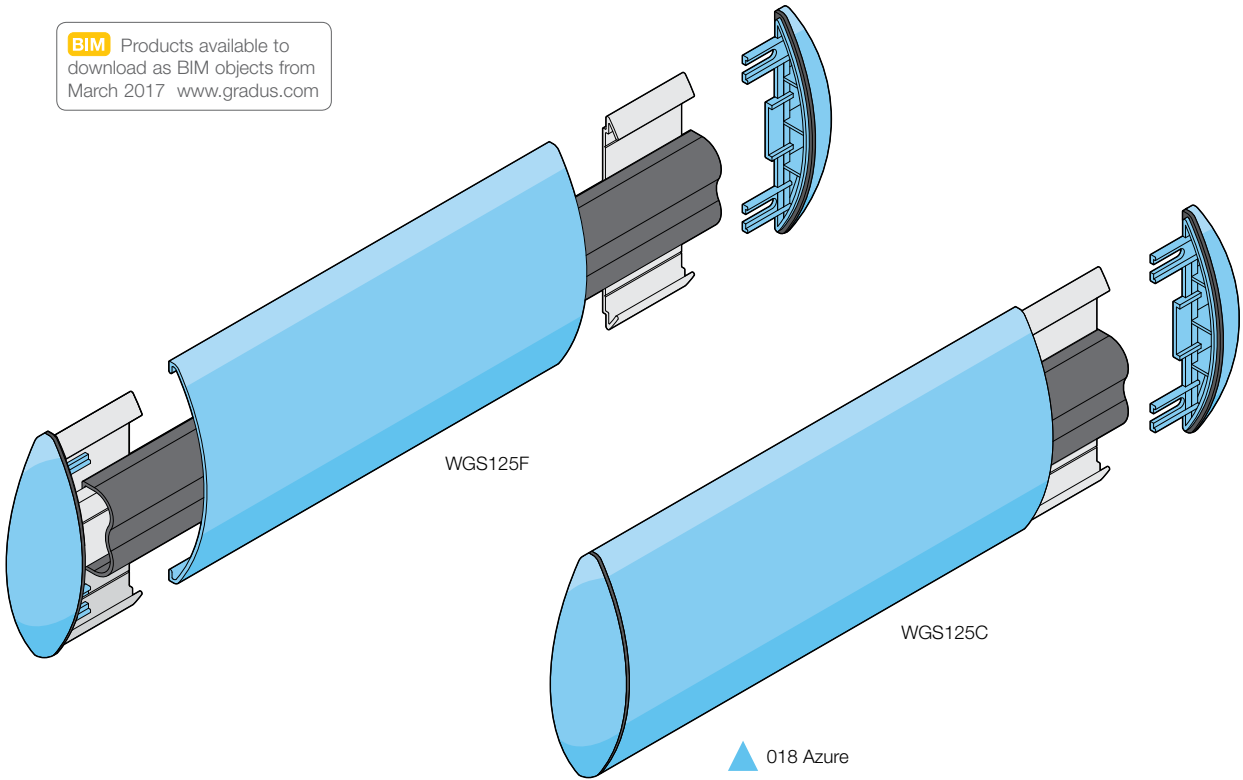


Continuous retainer:

- Provides rigid support for weaker substrates
- Ideal for bridging short gaps, recesses and voids

WGS125 Wall Guard

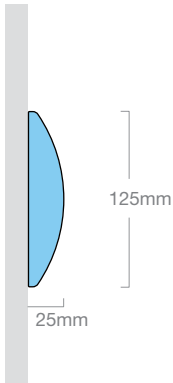
BIM Products available to download as BIM objects from March 2017 www.gradus.com



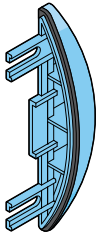
Section 2

Features

Components

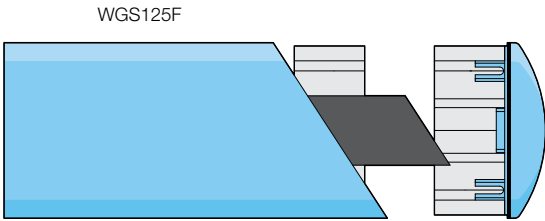


- Modular system comprising PVC-u covers, aluminium retainers and PVC-u accessories
- Replaceable, through coloured, easy-to-clean covers - textured to conceal the effects of impact and abrasion
- Features an internal bumper for additional strength and to absorb and dissipate impact
- Choice of retainers include continuous or aluminium fixing clips (see below)
- Design provides tight fit to wall - minimal dust/dirt trap
- Reveals provide tight, neat joints and contain an anti-microbial agent to inhibit the growth of bacteria
- Colour: Available in 32 colour options - see pages 19-21 for colours and availability
- Size: Supplied in 4m lengths
- Material: PVC-u, Aluminium

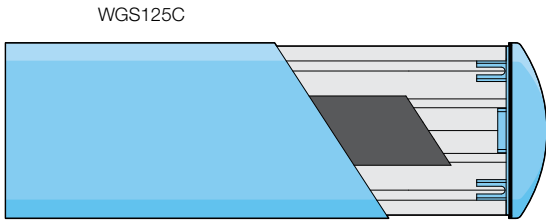


WGS1251 universal end cap (including reveal)

Profile options



WGS125F

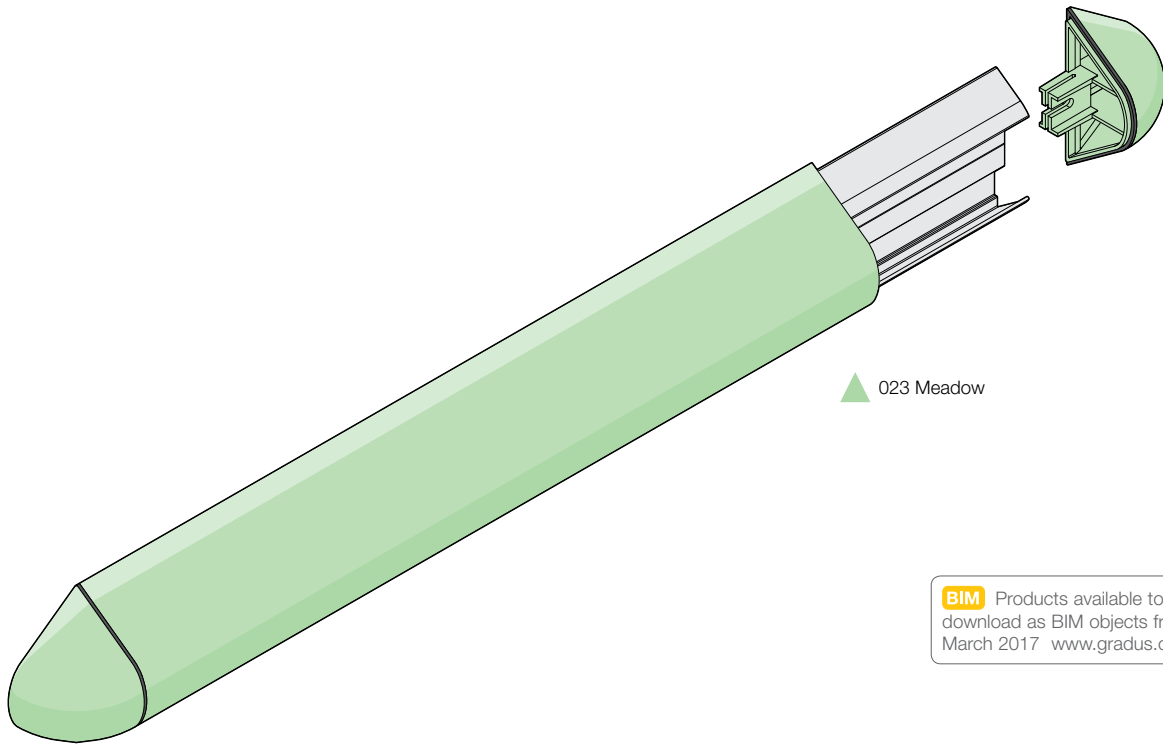


WGS125C

- 50mm fixing clip retainer:
- Easy to install – ideal for one person
 - Cost effective solution
 - Suitable for gently undulating substrates

- Continuous retainer:
- Provides rigid support for weaker substrates
 - Ideal for bridging short gaps, recesses and voids

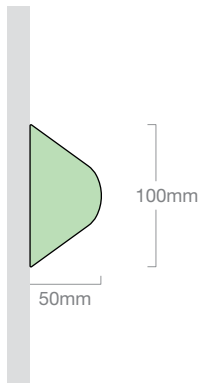
WGA100 Wall Guard



▲ 023 Meadow

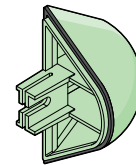
BIM Products available to download as BIM objects from March 2017 www.gradus.com

Features



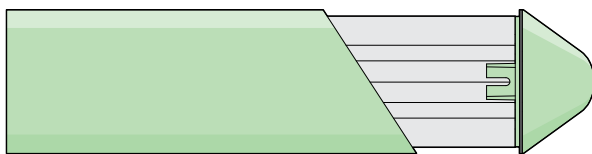
- Modular system comprising PVC-u covers, aluminium retainers and PVC-u accessories
- Replaceable, through coloured, easy-to-clean covers - textured to conceal the effects of impact and abrasion
- Angular design provides extended depth of protection against damage
- Reveals provide tight, neat joints and contain an anti-microbial agent to inhibit the growth of bacteria
- Colour: Available in 33 colour options - see pages 19-21 for colours and availability
- Size: Supplied in 4m lengths
- Material: PVC-u, Aluminium

Components



WGA1001
universal end cap
(including reveal)

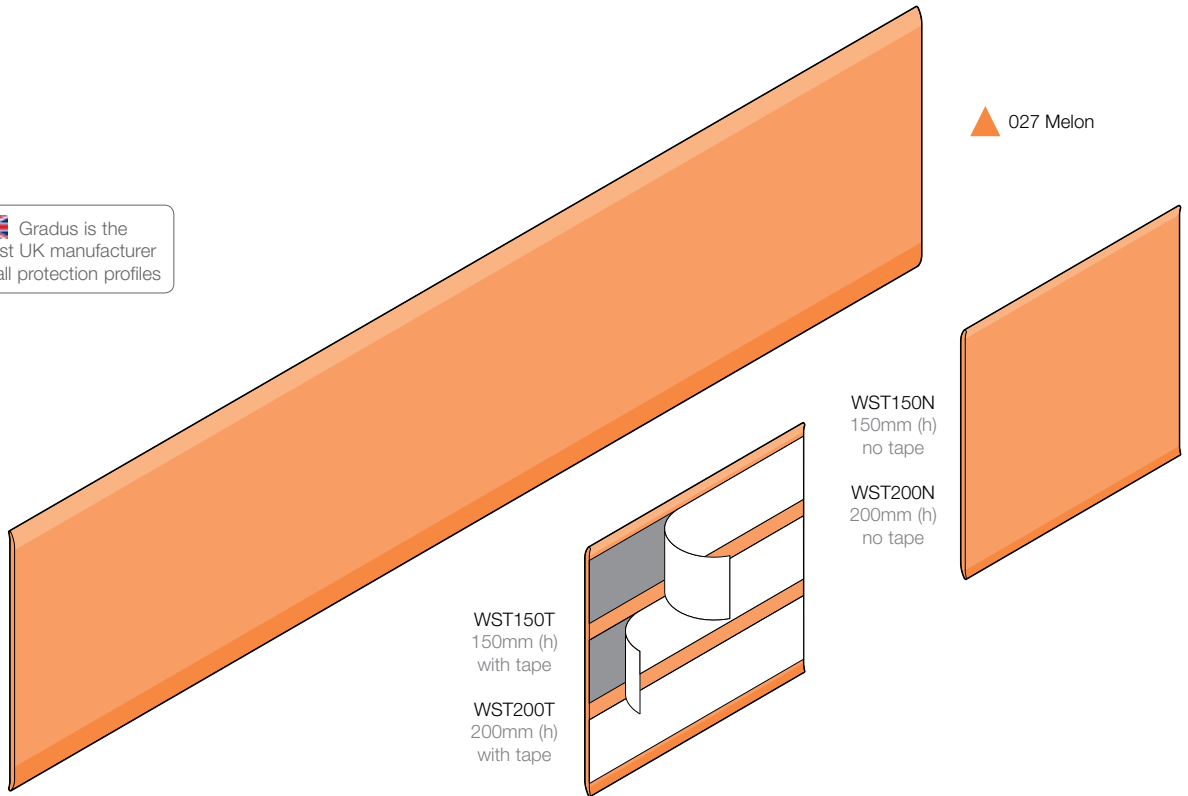
Profile



Continuous retainer provides rigid support whilst allowing cover to flex, absorbing the effects of impact.

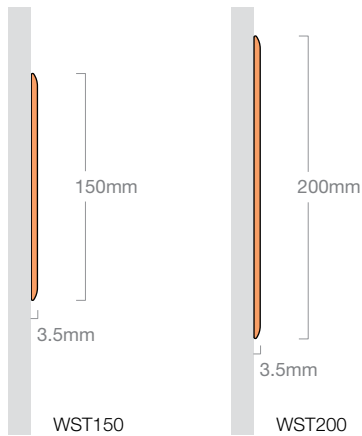
WST150 & WST200 Wall Strips

 Gradus is the largest UK manufacturer of wall protection profiles



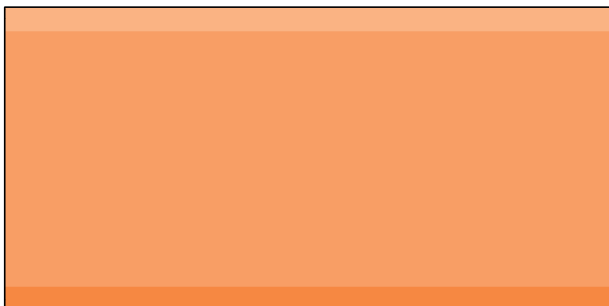
Section 2

Features



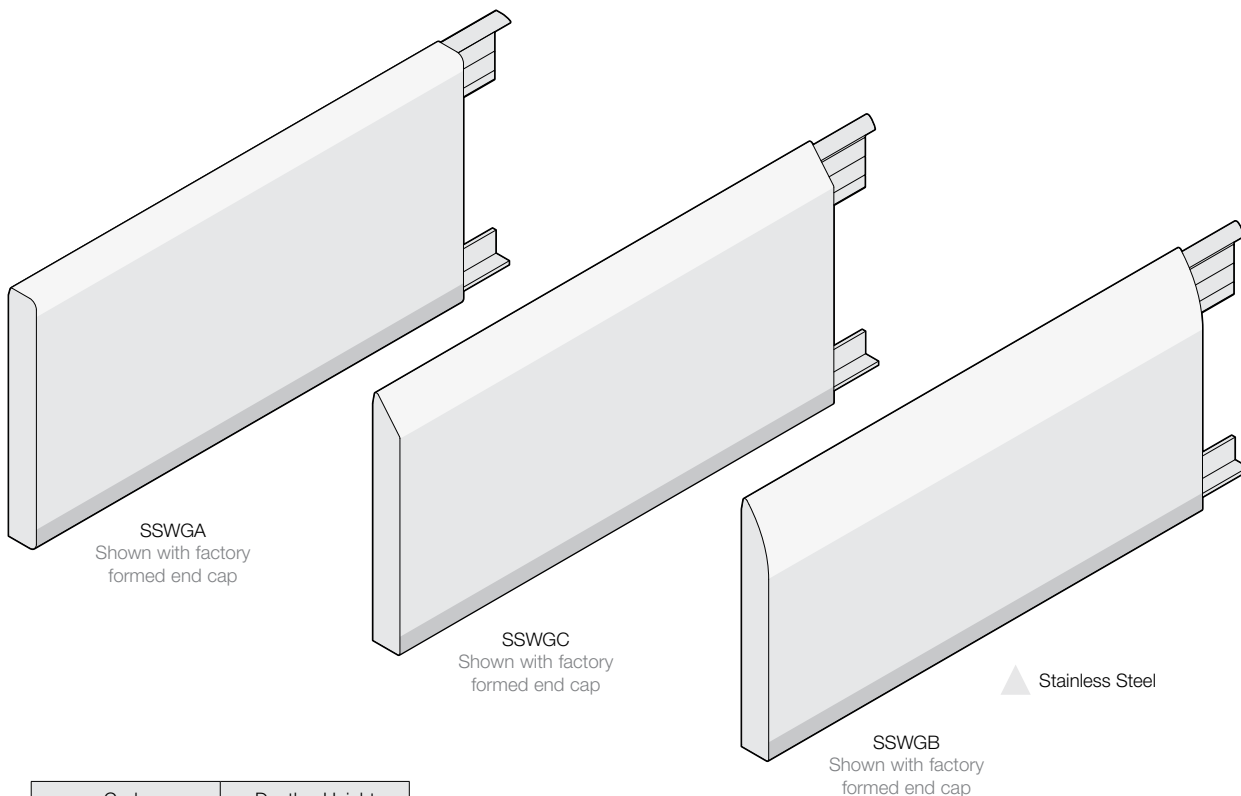
- Scratch and stain resistant PVC-u is through coloured and textured to conceal the effects of impact and abrasion
- Can be used along the entire length of a wall or cut down into kickplates or pushplates
- Ideal for protecting walls against scuffs, scratches and abrasion caused by chairs, tables, trolleys and other moveable objects
- Available with tape for quick and easy installation, or without tape for installing with a suitable adhesive
- Colour: Available in 32 colour options - see pages 19-21 for colour offer and availability
- Size: Supplied in 4m lengths
- Material: PVC-u

Profile



As an alternative SureProtect Endure PVC-u sheet can also be cut into rubrails (see pages 24-25)

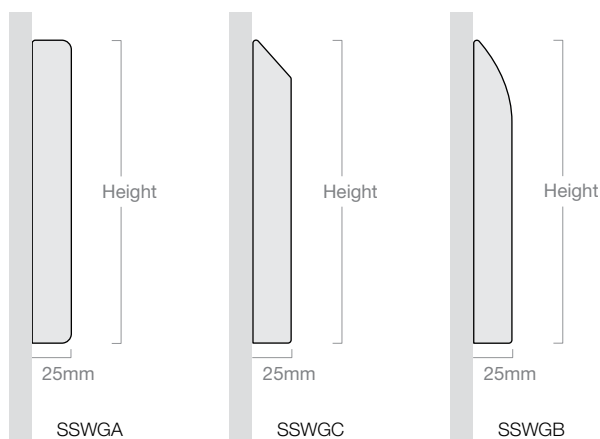
SSWG Stainless Steel Wall Guards



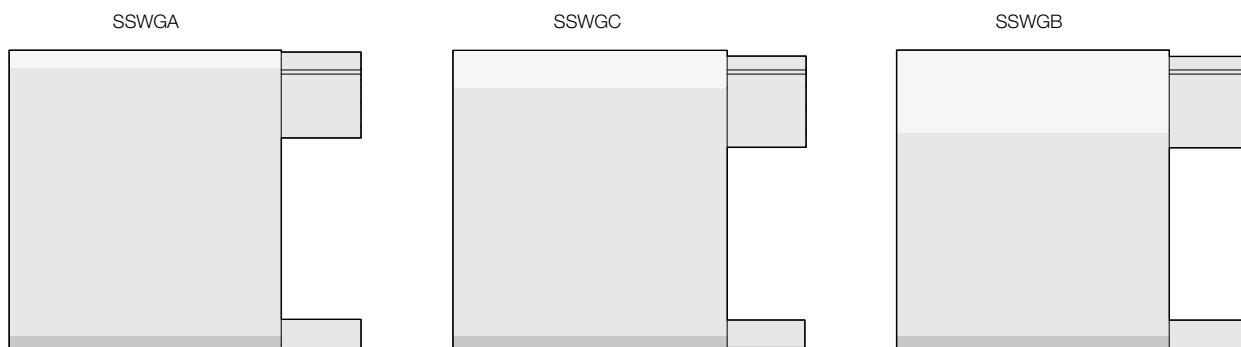
| Code | Depth x Height |
|--------|----------------|
| SSWGA1 | 25mm x 73mm |
| SSWGA2 | 25mm x 101mm |
| SSWGA3 | 25mm x 152mm |
| SSWGC1 | 25mm x 150mm |
| SSWGC2 | 25mm x 200mm |
| SSWGB1 | 25mm x 125mm |
| SSWGB2 | 25mm x 200mm |

Features

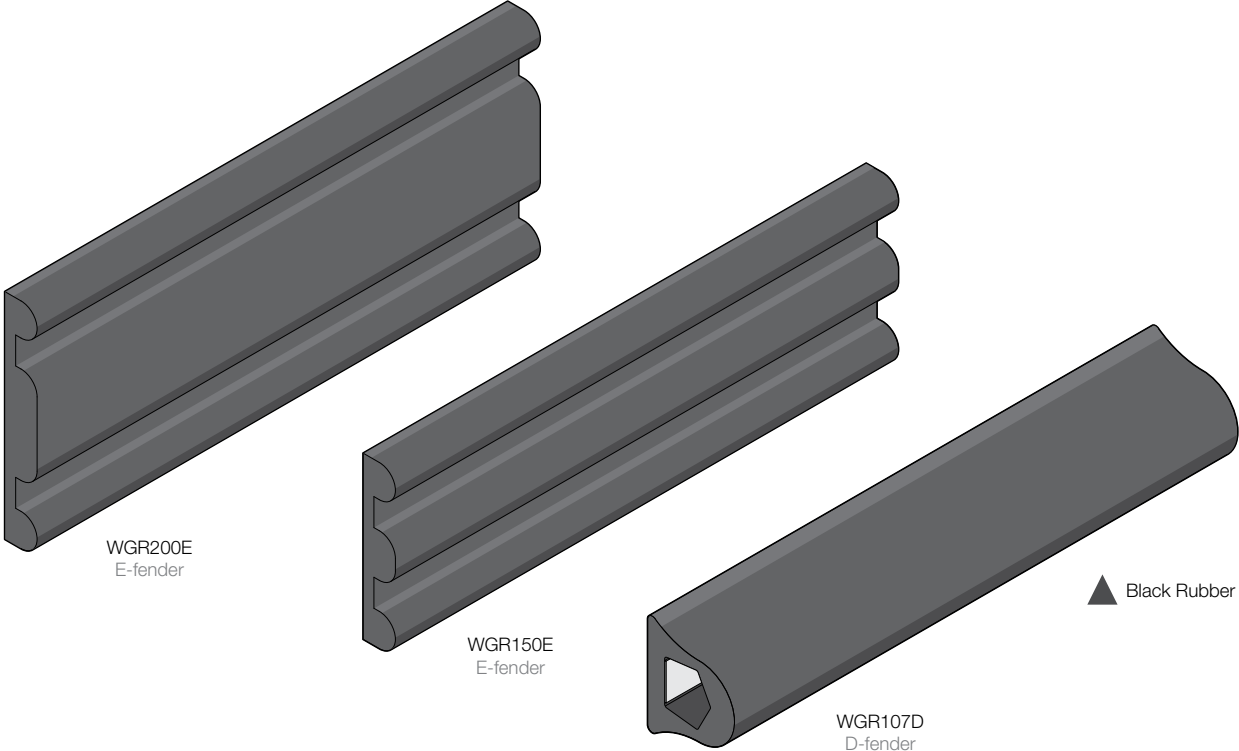
- Continuous stainless steel covers with aluminium fixing retainers
- 3 profile designs intended for interior use
- Hygienic nature of stainless steel makes the wall guards ideal for use in environments such as food and pharmaceutical preparation and manufacturing facilities
- End caps are formed during manufacture
- Colour: Satin finish
- Size: Supplied cut to size to a maximum length of 2.95m (longer runs should be butt jointed on-site)
- Material: 304 grade stainless steel



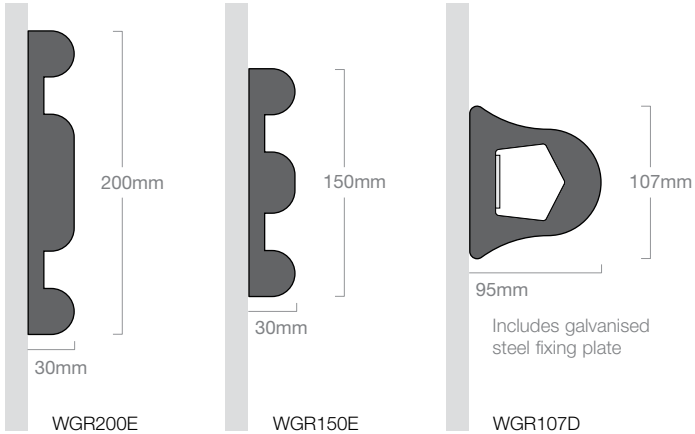
Profiles



WGR Rubber Wall Guards



Features



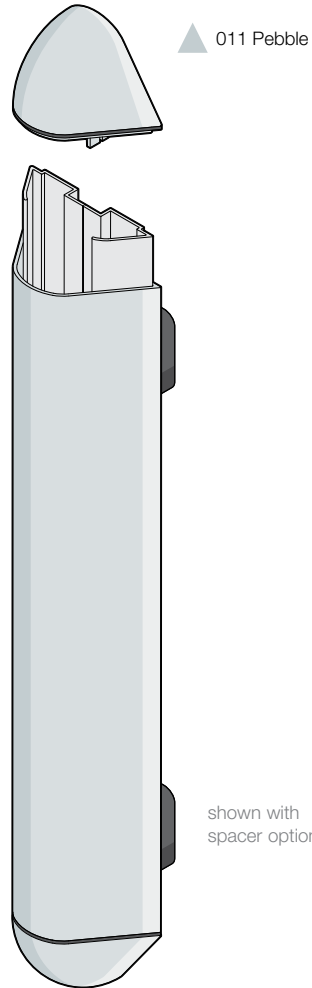
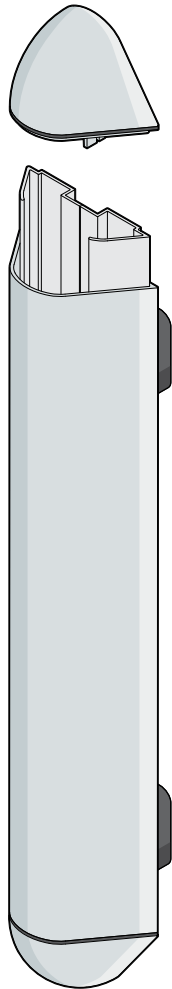
- Black rubber minimises the appearance of scuffs and scrapes
- Profiles absorb the effects of impact, minimising the extent of the damage
- Suitable for both interior & exterior environments. Can be fixed to practically any substrate, including concrete, brickwork and blockwork
- Internal and external corners are created through on-site mitring
- Ideal for use in manufacturing, warehousing and loading bays, back of house retail, hospital service corridors and car parks
- Colour: Black only
- Size: Supplied in 3m lengths
- Material: Rubber

Profiles



BHPA100 Bed Head Protectors

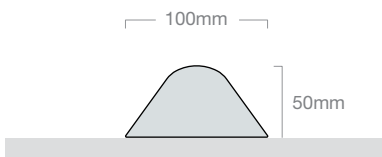
 Gradus is the largest UK manufacturer of wall protection profiles



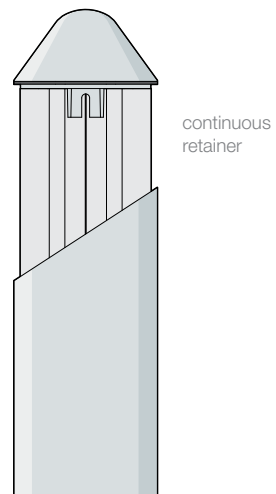
- Generally fixed vertically on to walls in pairs
- Can be used individually as chair protectors
- Supplied as a pre-cut packaged system for ease of installation
- Comprising PVC-u covers, aluminium retainers PVC-u end caps and rubber spacers
- Extender options are available to provide increased projection allowing for protection of medical services and trunking - contact Gradus Technical Services for information
- Designed to prevent damage to walls and wall mounted equipment from beds that are frequently moved around, elevated or inclined
- Utilises the WGA100 wall guard (see page 38)

- Colour: Available in 33 colour options - see pages 19-21 for colours and availability
- Size: Supplied in kit format - 2 units - 750mm (including end caps)
- Material: PVC-u, Aluminium

Features



Profile



Section 3

Handrails, Dual Rail & Combination Rail

Information on handrail solutions for pedestrian support and guidance in addition to surface protection. Includes PVC-u, timber, stainless steel and aluminium options.

Handrails, Dual Rails & Combination Rail

Gradus handrails, Dual Rails and combination rail are designed to offer pedestrian guidance and support in addition to a level of surface protection.

Designed for use in interior, horizontal circulation areas, they are suitable for use in a wide range of environments including education, healthcare, commercial office and transport.

The style of profile selected will depend on the types and levels of both pedestrian and wheeled traffic.

Handrails can also be combined with other profiles from the range to provide a complete protection solution.

Product Options



Handrail

- Traditional handrail design available in a range of materials and finishes including PVC-u, aluminium, timber and stainless steel.
- Offers a comfortable, smooth, continuous grip.
- Meets the guidance for dimensions in relation to grip diameter, distance from the wall and bracket clearance.
- Primarily designed to offer pedestrian support with a small element of wall protection.



Dual Rail - Available Autumn 2017

- Combines a choice of traditional handrail with a PVC-u wall guard linked together with a specialist bracket.
- Designed to meet the specific needs in healthcare environments where pedestrian support is required in addition to protection against impact from wheeled traffic.
- Meets the guidance set out in Health Building Notes 00-04 and 00-10 (Department of Health Estates & Facilities).



Combination Rail

- Features a handrail and wall guard element combined as a single profile.
- Offers both direct and indirect protection against impact from wheeled traffic.
- Features a comfortable grip and thumb groove to provide reassuring pedestrian support and guidance.

Handrails, Dual Rails & Combination Rail

Visual Contrast

All Gradus handrail colours have been measured to provide Light Reflectance Values (LRVs) in order to provide the specifier with the information required to ensure a suitable contrast is achieved.

Handrails, Dual Rails and combination rails need to be easily identified and located for support and wayfinding. This is particularly important in healthcare or elderly care environments where there is generally a higher percentage of users with visual impairments. Colours selected should have an LRV that is 30 points different from the surrounding surface as per guidance in Approved Document M of The Building Regulations 2010, BS 8300:2009+A1:2010 and HBN 00-04.

Gradus handrails and combination rails are available in a single colour which should be selected to visually contrast with the background wall surface. Dual Rail should be specified in 2 colours with the handrail contrasting with the surrounding wall surface and the wall guard blending in with the wall finish.

Design

Guidance in Approved Documents K & M of The Building Regulations 2010, BS 8300:2009+A1:2010 and HBN 00-04 detail best practice in terms of product design. All Gradus handrails and Dual Rail meet these requirements.

- Gripped easily with a slip resistant surface.
- Comfortable and not cold to the touch (PVC-u option).
- Spaced away from the wall with a clearance of between 50mm and 75mm* between the handrail and any adjacent wall surface.
- Rigidly supported in a way that avoids impeding finger grip with a clearance of at least 50mm between a cranked support and the underside of the handrail.
- Continuously graspable upon its entire length without obstruction.
- Circular – with a diameter of between 32mm and 50mm*.

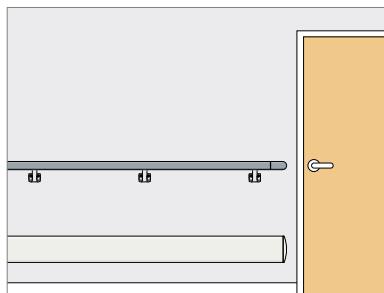
*Maximum dimensions stated – refer to respective guidance for specific sector requirements.

Height

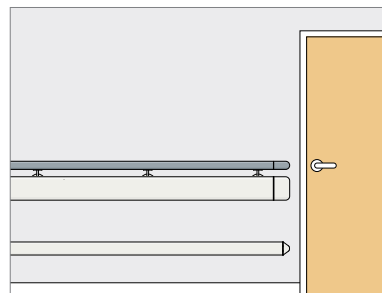
Handrails should be positioned on the wall at the optimum height for building users to ensure they are easy to locate and provide adequate support. Guidance states that handrails should:

- Be placed in main communication routes (HBN 00-04)
- Return into recessed doorways and openings but otherwise be continuous to navigation (HBN 00-04)
- Be positioned on the wall at a height of between 900mm and 1100mm. In environments where children will require access to a handrail then a second rail should be placed at a height of 600mm.

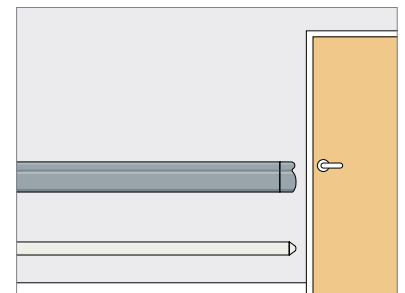
Example Applications



SHR40 Handrail
pedestrian guidance
shown with WGS200 Wall Guard

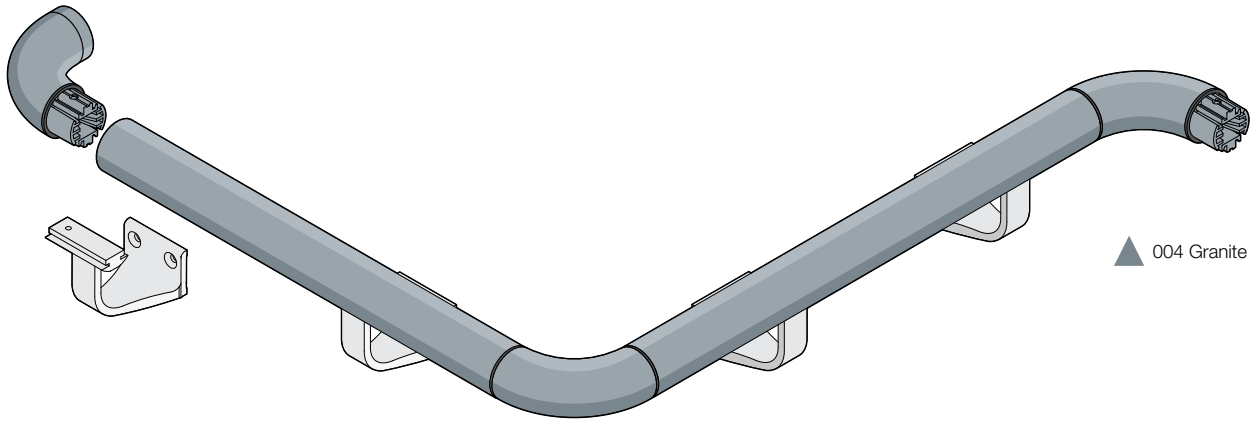


D200 Dual Rail
pedestrian guidance and impact protection
shown with WGA100 Wall Guard



CHR160 Combination Rail
pedestrian guidance and impact protection
shown with WGA100 Wall Guard

SHR40 Handrail



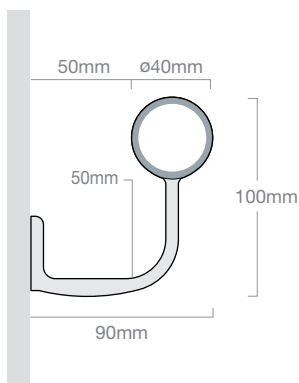
BIM Products available to download as BIM objects from March 2017 www.gradus.com

- SHR40 handrails are designed to offer pedestrian guidance and support in addition to a level of surface protection.
- Available in 3 options: SHR40P PVC-u cover, SHR40W wood effect aluminium and SHR40S silver anodised aluminium
- Suitable for use in a wide range of environments including healthcare, education and transport.
- Handrails feature a smooth finish in line with HBN 00-04.
- Reveals provide tight, neat joints and contain an anti-microbial agent to inhibit the growth of bacteria
- All options are designed to meet guidelines in HBN 00-10, HBN 00-04, BS8300:2009 + A1:2010 and Approved Documents K and M of The Building Regulations 2010.
- Size: Supplied in 4m lengths
- Material: PVC-u, Aluminium

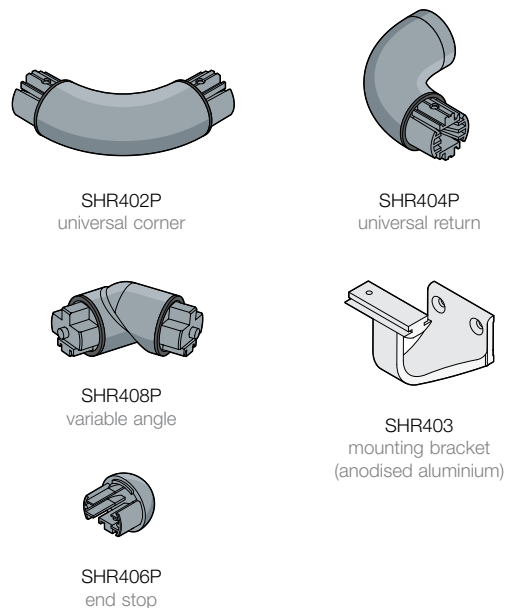
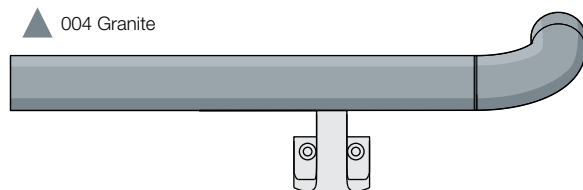
Features

SHR40P - Aluminium retainer with PVC-u covers and matching PVC-u accessories (see opposite)

- Colour: available in 32 colours - see pages 19-21 for colours and availability
- Accessories include reveal(s)



Components

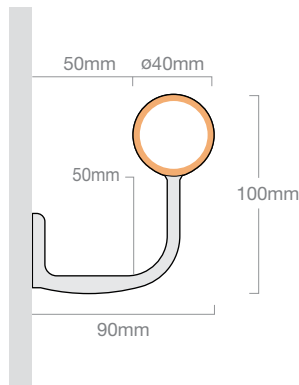


SHR40 Handrail

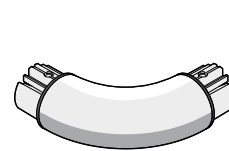
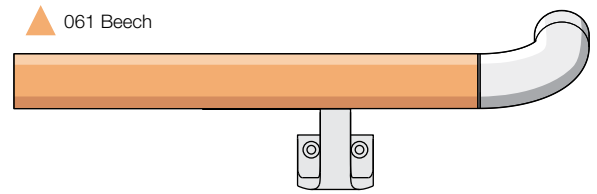
Features

SHR40W Aluminium handrail with wood effect finish with PVC-u accessories

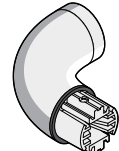
- Colour: Handrail colour available in 5 wood effects see page 19 for availability and 27 for larger colour swatches
Accessories are available in 32 colours, see page 21 for colours and availability
- Recommended PVC-u accessories colour - Flint 032, Pebble 011 or Granite 004
- Accessories include reveal(s)



Components



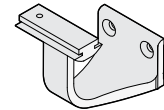
SHR402P
universal corner



SHR404P
universal return



SHR406P
end stop

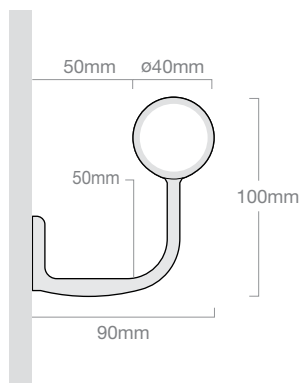


SHR403
mounting bracket
(anodised aluminium)

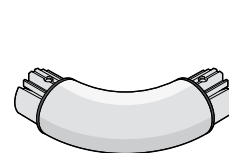
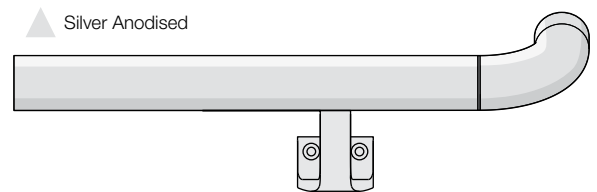
Features

SHR40S Silver anodised handrail with PVC-u accessories

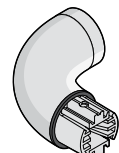
- Colour: Handrail available in Silver Anodised finish
Accessories are available in 32 colours, see page 21 for colours and availability
- Recommended PVC-u accessories colour - Flint 032
- Accessories include reveal(s)



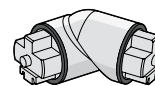
Components



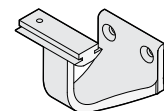
SHR402P
universal corner



SHR404P
universal return



SHR408P
variable angle

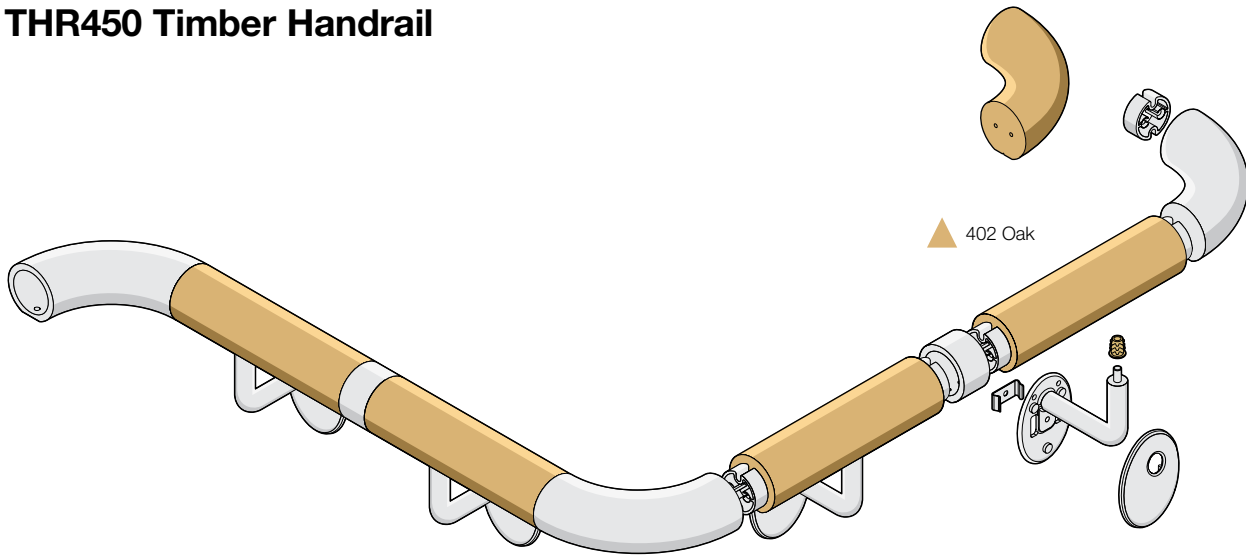


SHR403
mounting bracket
(anodised aluminium)



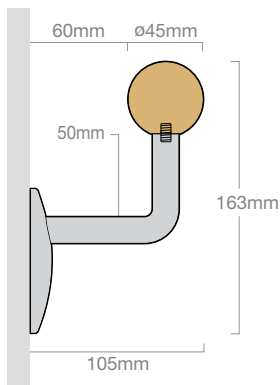
SHR406P
end stop

THR450 Timber Handrail



- Solid timber handrail with stainless steel or solid timber finishing accessories
- Supplied pre-lacquered – no on-site finishing required
- Timber handrail also forms part of D200T Dual Rail (see page 51)
- Colour: 4 timber options
- Size: Ash & Oak supplied in 3.6m lengths; Maple & Sapele 3.0m lengths
- Material: Timber, Stainless steel

Features



Components



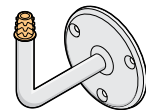
T951 mounting bracket



SS454 stainless steel option (includes two 456 splices)



FBC Collar (includes two 456 splices)



T959 mounting bracket

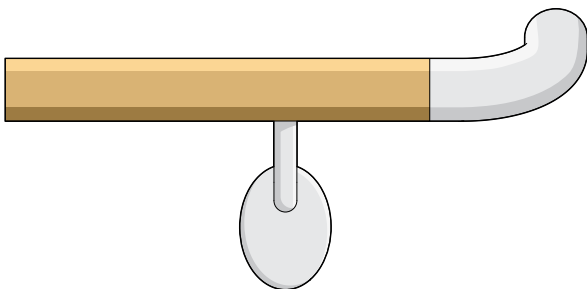


T454 Timber option (FBC Collar required to connect to Handrail)



456

Timber options



401 Ash

LRV: 42.92



403 Maple

LRV: 36.84



402 Oak

LRV: 28.06

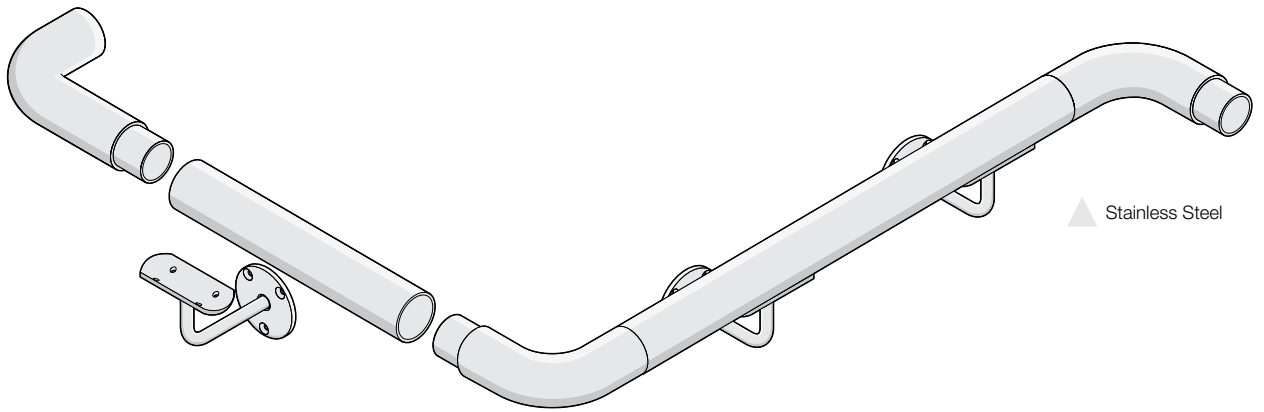


406 Sapele

LRV: 15.11

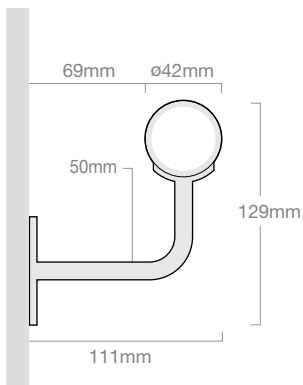
Light Reflectance Values shown are a guide only as wood is a natural product. Variations in colour & pattern will occur.

SSHR42 Stainless Steel Handrail

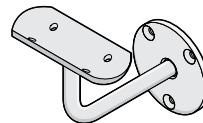


- Comprise stainless steel handrail, brackets and matching accessories
- Can be curved for bespoke applications (contact Gradus for radii information)
- Suitable for interior environments
- Colour: Satin or Polished finish
- Size: Supplied in 3m lengths
- Material: Stainless steel

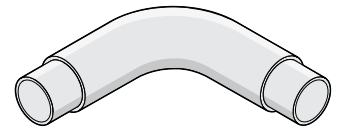
Features



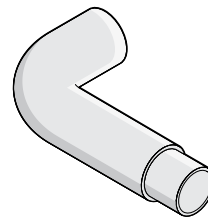
Components



SSHR42/SBRKT
mounting bracket



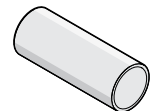
SSHR42/A90
inside/outside corner 90°



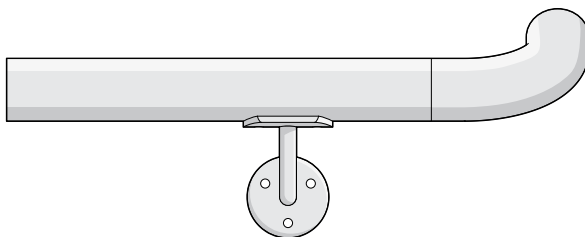
SSHR42/RET
wall return



SSHR42/EC
flat end cap



SSHR42/SPLICE
liner joint



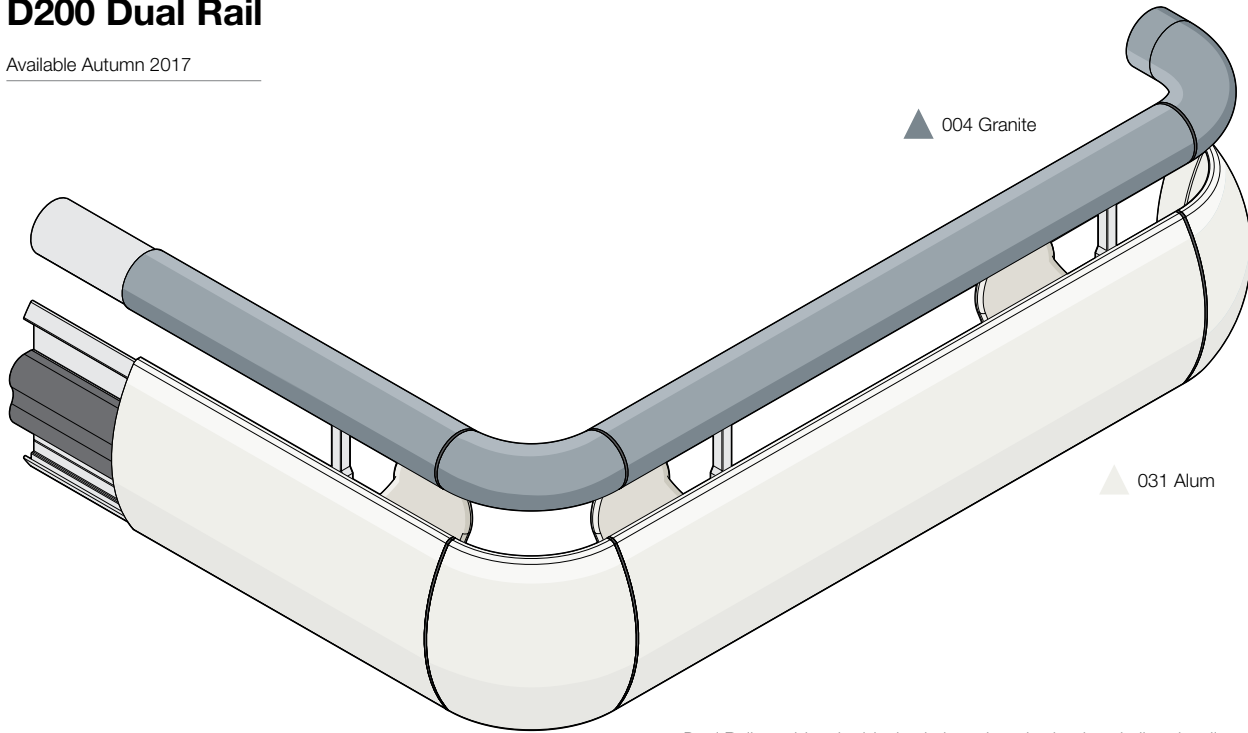
Finish



Stainless Steel

D200 Dual Rail

Available Autumn 2017



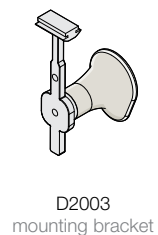
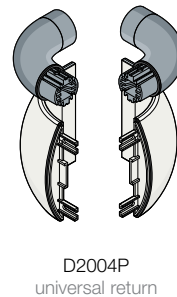
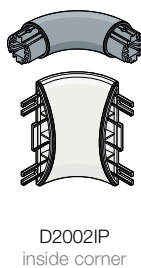
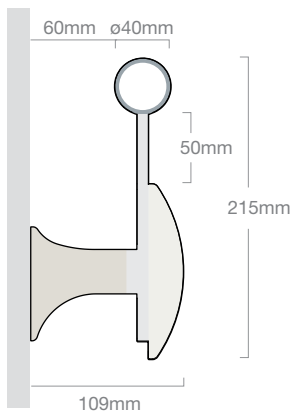
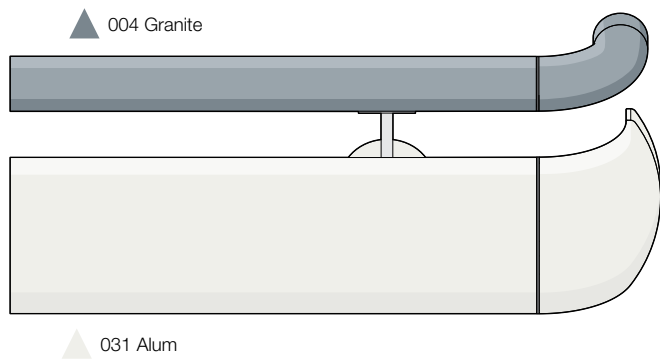
- Dual Rail provides the ideal solution where both a handrail and wall guard are required as a combined system.
- Available in 4 options: D200P with PVC-u handrail, D200T with Timber handrail, D200W with wood effect aluminium handrail and D200S with silver anodised aluminium handrail
- Ideal for healthcare environments where pedestrian support is required in addition to protection against severe impact.
- Reveals provide tight, neat joints and contain an anti-microbial agent to inhibit the growth of bacteria
- All options are designed to meet guidelines in HBN 00-10, HBN 00-04, BS8300:2009 + A1:2010 and Approved Documents K and M (see page 70 for details)
- Size: Supplied in 4m lengths
- Material: See individual product options

Features

D200P - PVC-u wall guard with PVC-u handrail and PVC-u accessories

- Colour: Wall Guard: All options available in 32 colours - see pages 19-21 for colours and availability
Handrail: D200P – as wall guard above
- Accessories include reveal(s)

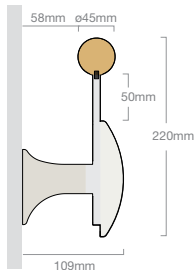
Components



D200 Dual Rail

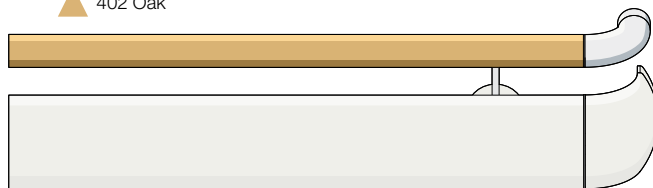
D200T - PVC-u wall guard with timber handrail and stainless steel accessories

- Colour: Wall Guard: All options available in 32 colours - see pages 19-21 for colours and availability
Handrail: available in 4 timbers - see page 48 for details
- Wall guard accessories include reveal(s)

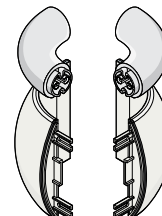


D2002EST
outside corner

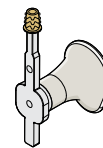
▲ 402 Oak



D2002IST
inside corner



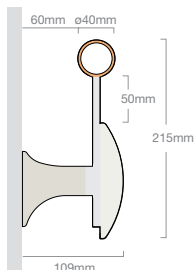
D2004ST
universal return



D2003T
mounting bracket

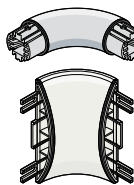
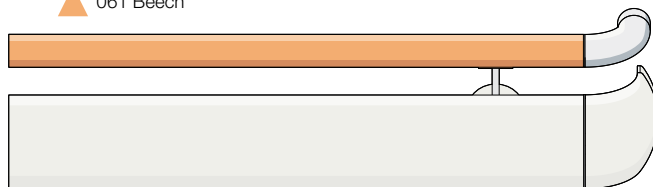
D200W - PVC-u wall guard with wood effect aluminium handrail and PVC-u accessories

- Colour: Wall Guard: All options available in 32 colours - see pages 19-21 for colours and availability
Handrail: available in 5 wood effects - see page 19 for details and page 27 for larger colour swatches
- Accessories include reveal(s)

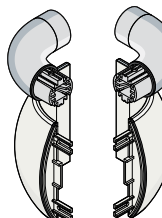


D2002ECP
outside corner

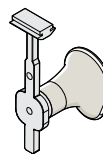
▲ 061 Beech



D2002ICP
inside corner



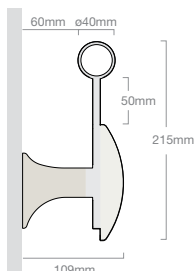
D2004CP
universal return



D2003
mounting bracket

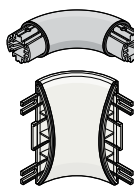
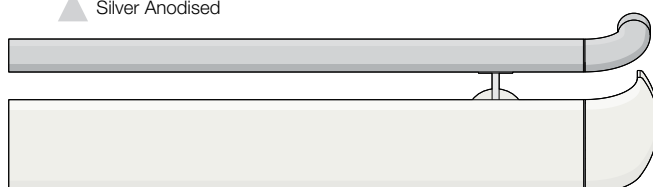
D200S - PVC-u wall guard with silver anodised aluminium handrail and PVC-u accessories

- Colour: Wall Guard: All options available in 32 colours - see pages 19-21 for colours and availability
Handrail: available in Silver Anodised finish
- Accessories include reveal(s)

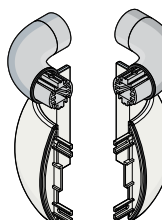


D2002ESP
outside corner

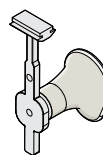
▲ 031 Alum



D2002ISP
inside corner

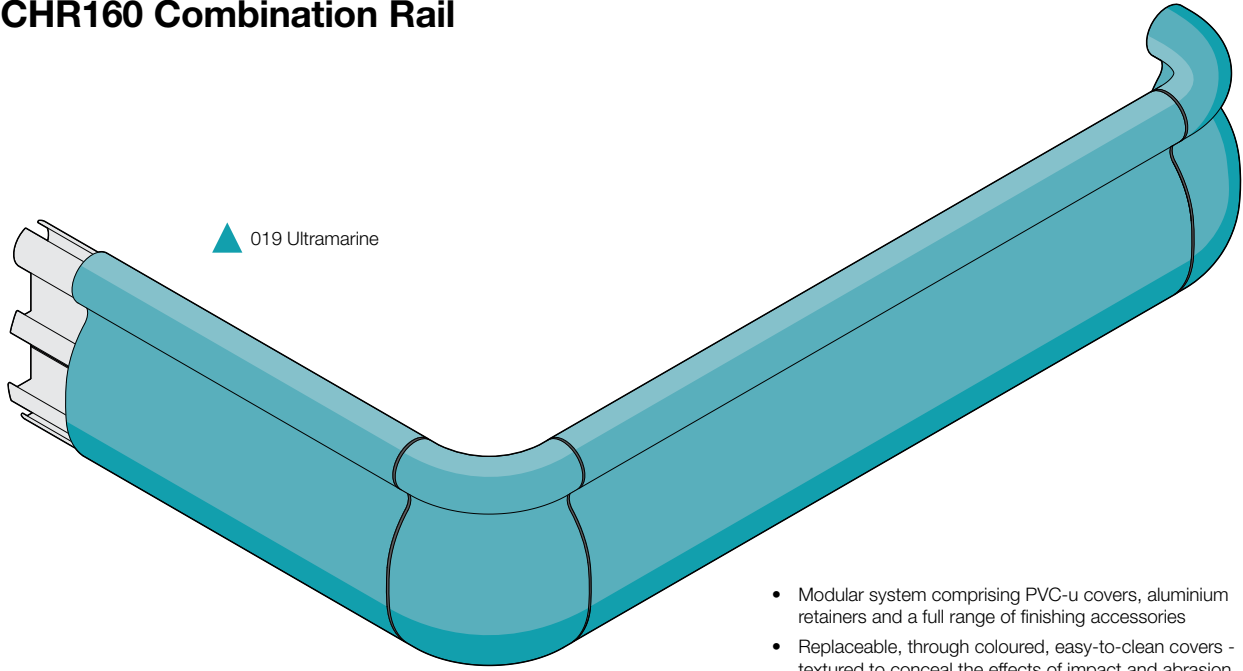


D2004SP
universal return



D2003
mounting bracket

CHR160 Combination Rail

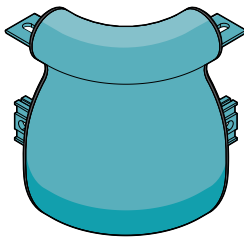


▲ 019 Ultramarine

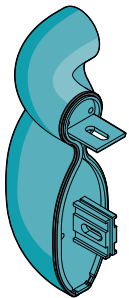
 Gradus is the largest UK manufacturer of wall protection profiles

- Modular system comprising PVC-u covers, aluminium retainers and a full range of finishing accessories
- Replaceable, through coloured, easy-to-clean covers - textured to conceal the effects of impact and abrasion
- Closed slots to ensure ends remain in place in event of severe high impact
- Reveals provide tight, neat joints and contain an anti-microbial agent to inhibit the growth of bacteria
- Colour: Available in 32 colour options - see pages 19-21 for colours and availability
- Size: Supplied in 4m lengths.
- Material: PVC-u, Aluminium

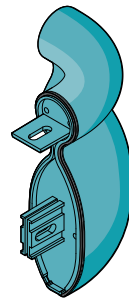
Components



CHR1602
universal corner
(including reveals)



CHR1604L
left return
(including reveal)

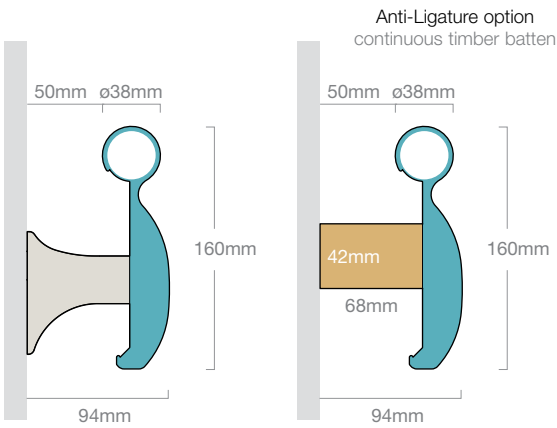


CHR1604R
right return
(including reveal)

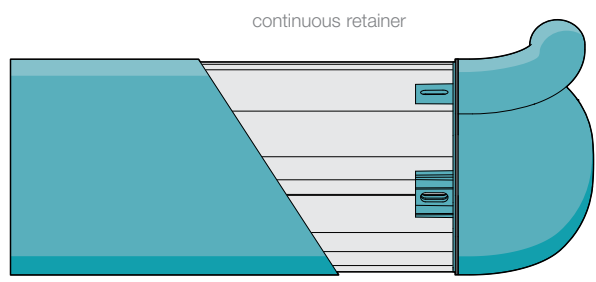


CHR1603
mounting bracket
(supplied in colour 002 Gravel)

Features



Profile



Section 4

Corner Guards

Information on a wide range of corner protection solutions including PVC-u, stainless steel, rubber, aluminium and reflective corner guards.

Corner Guards

Corners are one of the most vulnerable parts of a building and when left exposed are often damaged from everyday wheeled and pedestrian traffic. Corner guards are ideal for reducing maintenance costs and maintaining interior appearances and can be combined with other Gradus protection products to provide a complete solution.

Gradus corner guards are available in a variety of material types, styles and heights to suit all building requirements.

Product Options



High Impact PVC-u



Stainless Steel



Standard PVC-u



Rubber

Types of corner guards:

High Impact PVC-u

- Aluminium retainer provides reinforced defence against high impact damage from wheeled traffic combined with a shock absorbent PVC cover which can be easily replaced if damaged

Standard PVC-u

- Cost effective solution for protecting corners from damage caused by pedestrian and wheeled traffic

Adjustable Angle PVC-u

- Co-extruded PVC apex designed to provide a flexible solution to irregular corner angles

Clear

- Clear PVC-u allows any decorative surface finishes to clearly show through without interruption, providing an ideal solution in areas where less obtrusive protection is required

Stainless Steel

- Durable and hygienic protection solutions for clinical areas or to enhance aesthetics

Aluminium Chequer Plate

- Robust material to withstand damage from wheeled traffic

Rubber

- Designed to deflect impact, protecting both wheeled traffic and building interiors against impact damage

Reflective

- Highly visible to alert vehicle users and protect both vehicles and buildings from impact damage

Considerations when selecting corner guards:

Height

Whilst most corner damage will occur at lower levels, there are some exceptions. It is important to consider the following factors before specifying the height of the product:

- Type and size of traffic that could cause damage
- How the product will coordinate with other wall protection products e.g. handrails, wall guards and wall cladding
- Highlighting hazards – corner guards used to highlight columns, ducts or similar elements that project into circulation areas should be full height (refer to Approved Document M 2.29)

Wing size

Selecting the appropriate wing size will vary depending on the type of environment, however, it is generally recommended that the maximum wing size should be specified for the following reasons:

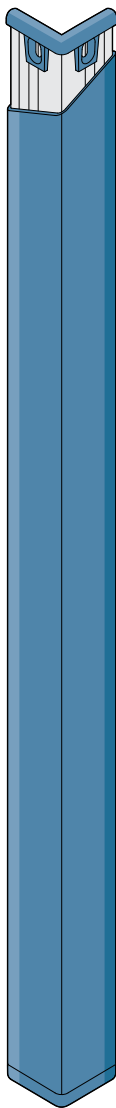
- Larger wing sizes cover more of the substrate and therefore offer a higher degree of protection
- When installing corner guards, larger wing sizes offer a greater surface area for adhesive and enables mechanical fixings to be applied further away from the apex of the corner

Colour

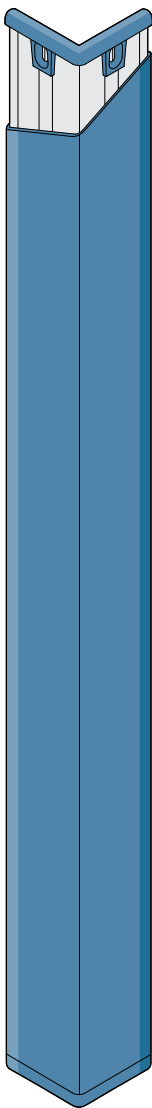
Corner guards can be selected in a colour to either visually contrast with surrounding wall surfaces or to blend in with the décor.

- Blend
 - Provide protection without compromising on the interior design of the building
 - Installing at full height helps to further blend the product in with the design
- Contrast
 - Specifying in a contrasting colour to the substrate alerts building users to avoid potential impact
 - Should be installed at minimum height of eye level to work effectively at alerting building users

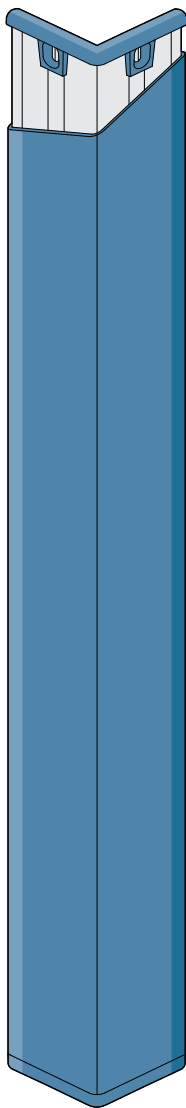
High Impact PVC-u Corner Guards



CGH5090
90°

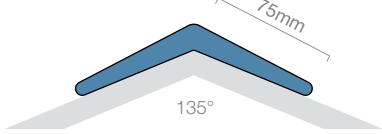
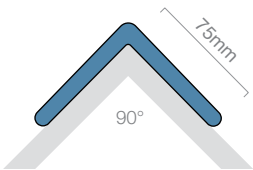
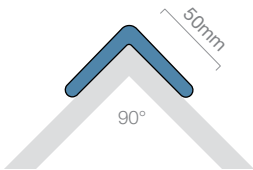


CGH7590
90°



CGH75135
135°

▲ 020 Denim

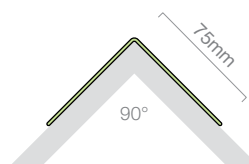
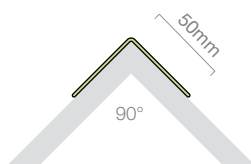
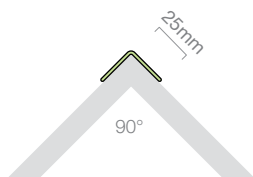
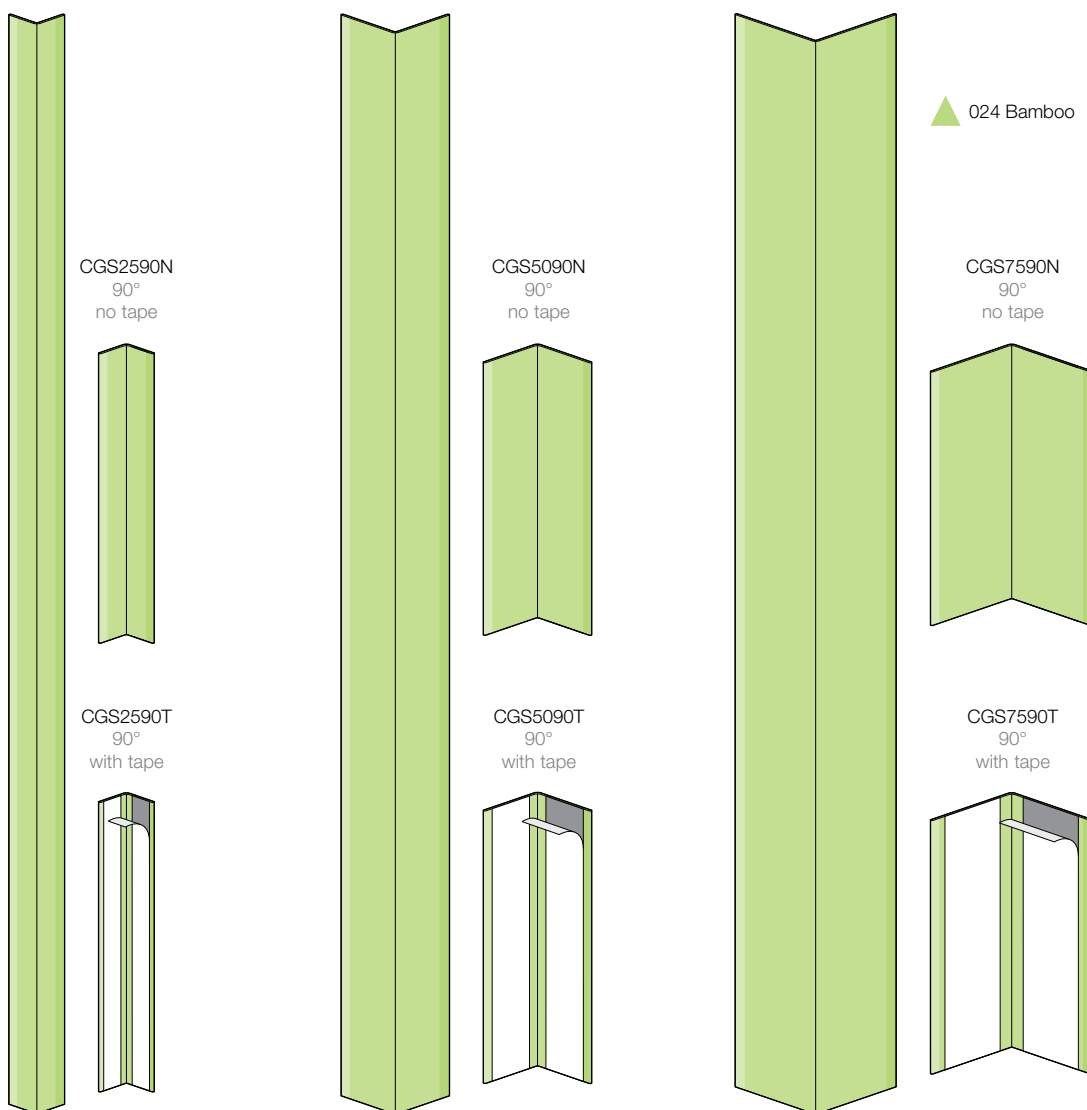


Features

- Surface mount corner guards comprising aluminium retainer, PVC-u cover and PVC-u top/bottom caps
- Replaceable, through coloured, easy-to-clean covers - textured to conceal the effects of impact and abrasion
- Aluminium retainer provides additional support for weaker substrates
- Supplied in package format with pre-cut retainer, cover and 2 caps
- Colour: Available in 33 colour options – see pages 19-21 for details.
- Height: 5 options: 0.8m, 1.0m, 1.3m, 2.0m and 4.0m. Can also be cut down to suit specific requirements with additional top/bottom caps available to order.
- Material: PVC-u, Aluminium
- Environment: Interior

Standard PVC-u Corner Guards - with or without tape

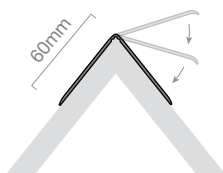
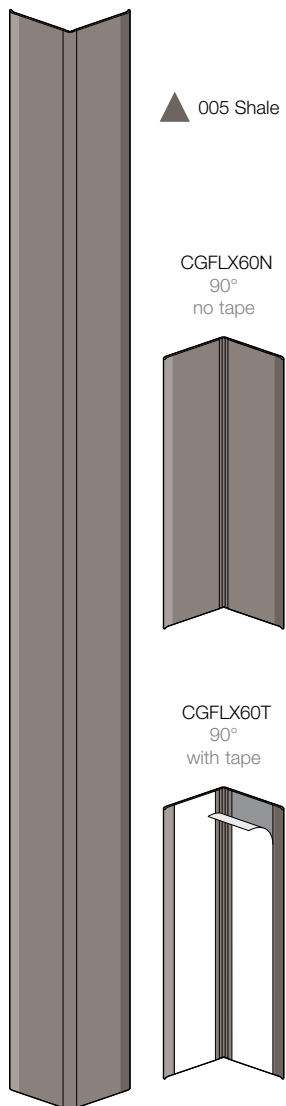
 Gradus is the largest UK manufacturer of wall protection profiles



Features

- One-piece, surface mount corner guards
- Cost effective solution ideal for use in environments such as hotels, leisure clubs, schools, offices and nursing homes
- Through-coloured, easy-to-clean PVC-u – textured to conceal the effects of impact and abrasion.
- Supplied with tape for ease of installation or without, for installation with a suitable adhesive
- Colour: Available in 34 colour options – see pages 19-21 for details.
- Height: 5 options: 0.8m, 1.0m, 1.3m, 2.0m, 2.7m and 4.0m. Can also be cut down to suit specific requirements.
- Material: PVC-u
- Environment: Interior

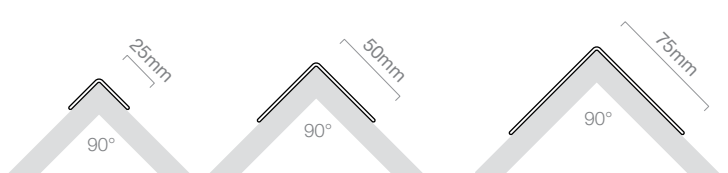
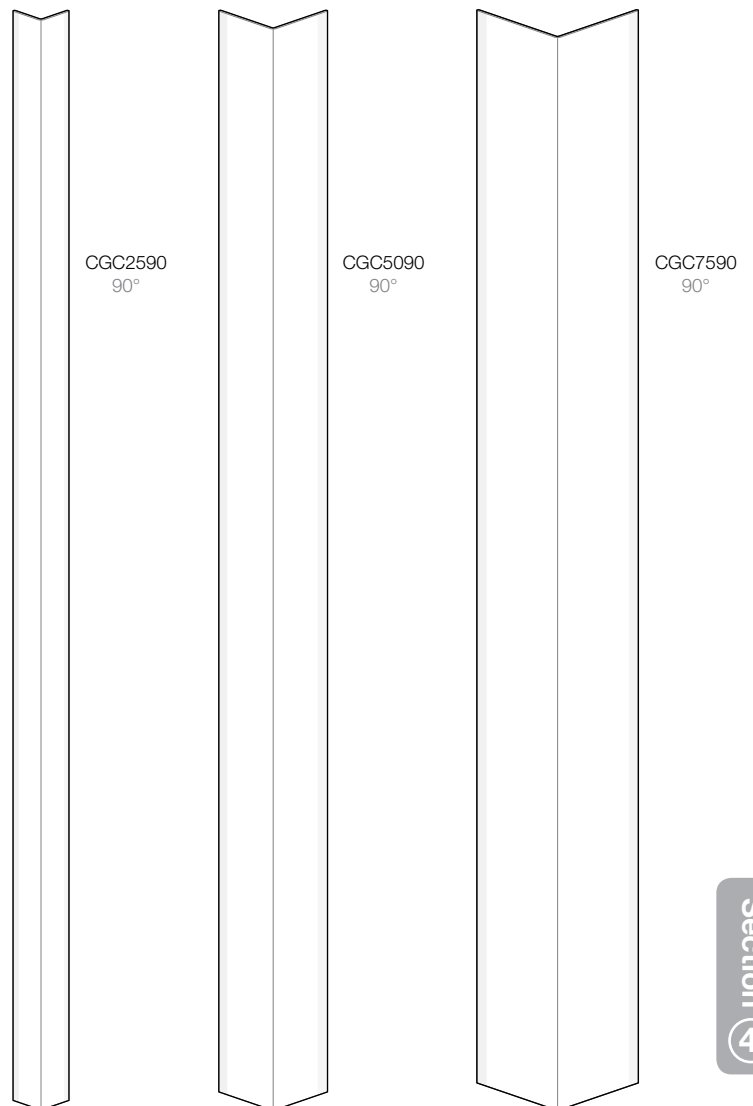
Adjustable Angle PVC-u Corner Guard



Features

- One-piece, surface mount corner guard – through-coloured and textured to conceal the effects of impact
- Cost effective solution for irregular angle corners
- Supplied with or without tape
- Colour: Available in - 001 Chalk, 006 Ivory, 003 Clay, 005 Shale – see page 20
- Height: 5 options: 0.8m, 1.0m, 1.3m, 2.0m, 2.7m and 4.0m. Can also be cut down to suit specific requirements.
- Material: PVC-u & PVC
- Environment: Interior

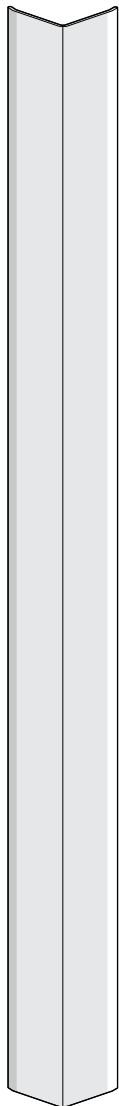
Clear PVC-u Corner Guards



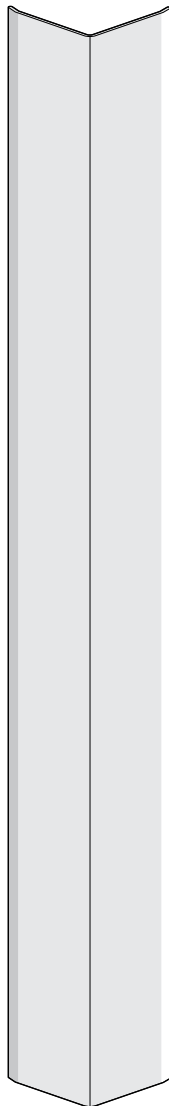
Features

- One-piece, surface mount corner guards with smooth finish
- Allow wallcoverings and finishes to be protected whilst allowing pattern and colour to show through
- Colour: Clear
- Height: 5 options: 0.8m, 1.0m, 1.3m, 2.0m, 2.7m and 4.0m. Can also be cut down to suit specific requirements.
- Material: PVC-u
- Environment: Interior

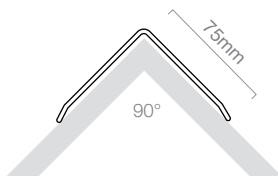
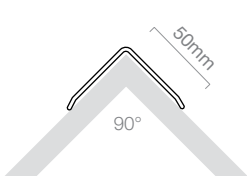
Stainless Steel Corner Guards



SSCG5090D
drilled
90°
SSCG5090U
undrilled
90°



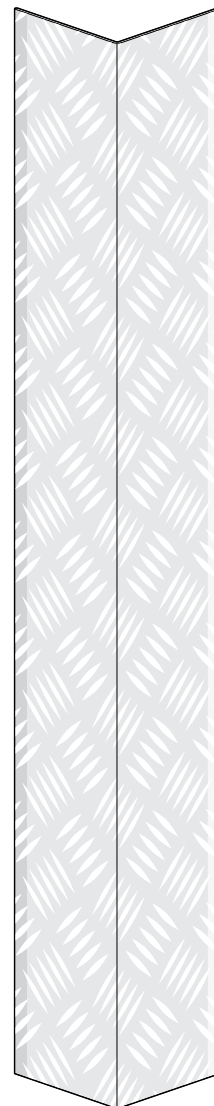
SSCG7590D
drilled
90°
SSCG7590U
undrilled
90°



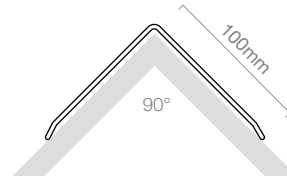
Features

- One-piece, surface mount corner guards
- Hygienic, durable protection for applications such as kitchens, canteens and laboratories
- Supplied drilled or undrilled
- Finish: Satin
- Height: 2 options: 1.25m, 2.5m
- Material: 304 Grade Stainless Steel – 1.5mm
- Environment: Interior

Aluminium Chequer Plate Corner Guard



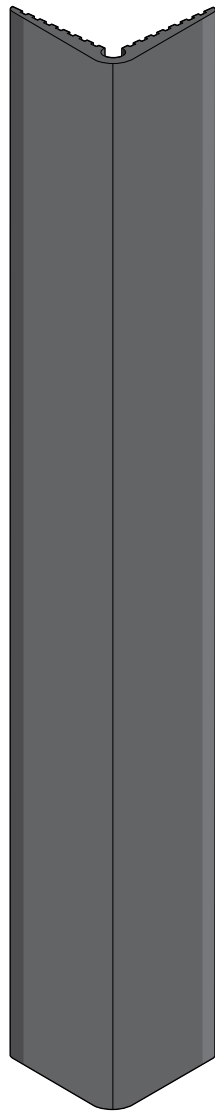
CPACG
10090/1250
90°



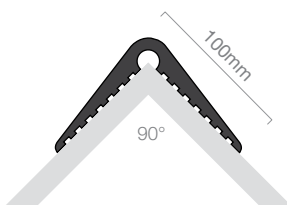
Features

- One-piece, surface mount corner guards
- Lightweight, easy-to-install
- Embossed chequer pattern conceals the effects of impact and abrasions
- Supplied undrilled
- Finish: Chequer Pattern
- Height: 1.25m
- Material: Aluminium
- Environment: Interior & Exterior

Rubber Corner Guard



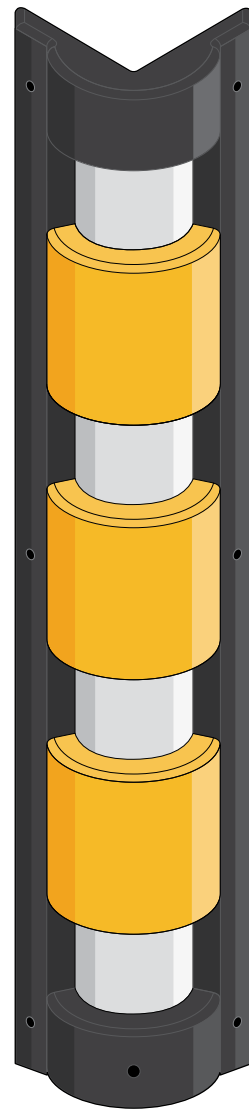
CGR119
90°



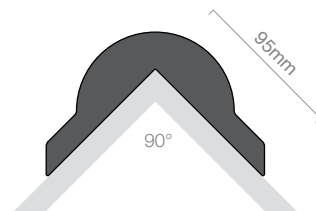
Features

- One-piece, surface mount corner guard
- Heavy duty protection against damage caused by wheeled traffic
- Through coloured to conceal the effects of impact
- Ideal for use in manufacturing, warehousing and loading bays, back of house retail, hospital service corridors and car parks
- Supplied undrilled
- Colour: Black
- Height: 3.00m
- Material: Rubber
- Environment: Interior & Exterior

Reflective Corner Guard



CGCW-890-BY
90°



Features

- One-piece, surface mount corner guards incorporating impact absorption pads and diamond grade reflectors
- Highly visible to alert vehicle users to potential hazards
- Ideal for loading bays and basement car parks where vehicles are manoeuvring in tight spaces and often with poor visibility
- Suitable for corners and pre-cast concrete or clad pillars
- Supplied undrilled
- Colour: Black/Yellow/Reflectors
- Height: 890mm
- Material: Polyethylene
- Environment: Interior & Exterior

Section 5

Door Protection

Door faces, edges & frames are vulnerable to damage due to the constant flow of pedestrian and wheeled traffic. A variety of door protection products are available to help prevent damage, conceal existing damage and highlight the door and door furniture, to assist the visually impaired and to meet guidelines in The Building Regulations 2010: Approved Document M and BS8300:2009 + A1:2010.

Door Face Protection

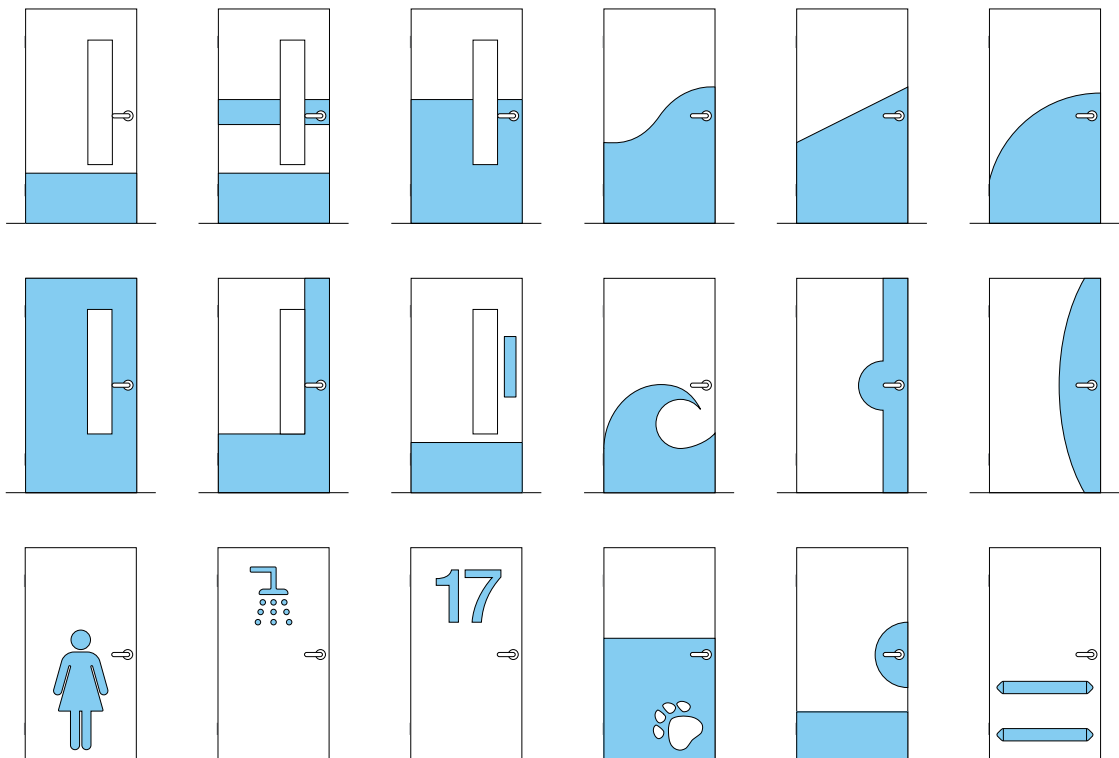
Door face protection

Door face protection can be cut into pushplates, kickplates, door protection, cladding and other bespoke solutions.

Available material options

| Material | Thickness | Maximum Size | Specification Details |
|-----------------|-----------|-----------------|--|
| PVC-u | 2mm | 3000mm x 1300mm | <ul style="list-style-type: none"> • 34 colour options • Tested in accordance with EN ISO 11925-2:2010 and EN 13823:2010+A1:2014 and classified according to EN 13501-1:2007+A1:2009 as – Reaction to Fire classification: B-s3, d0 • Tested as resistant to chemical, bacterial and fungal growth • Textured finish designed to conceal the effects of impact and abrasion • Cut from SureProtect Endure sheet to individual size requirements • Option to cut bespoke shapes and designs • Suitable for interior environments |
| Stainless Steel | 1.5mm | 2500mm x 1250mm | <ul style="list-style-type: none"> • 304 grade Stainless Steel with Satin finish • Suitable for hygienic environments e.g. food preparation areas and laboratories • Cut to individual size requirements • Supplied drilled or undrilled • Suitable for both interior and exterior environments |
| Aluminium | 2mm | 2500mm x 1250mm | <ul style="list-style-type: none"> • Aluminium with embossed chequer pattern • Embossed texture conceals the effects of impact damage • Cut to individual size requirements • Supplied drilled or undrilled • Suitable for both interior and exterior environments |

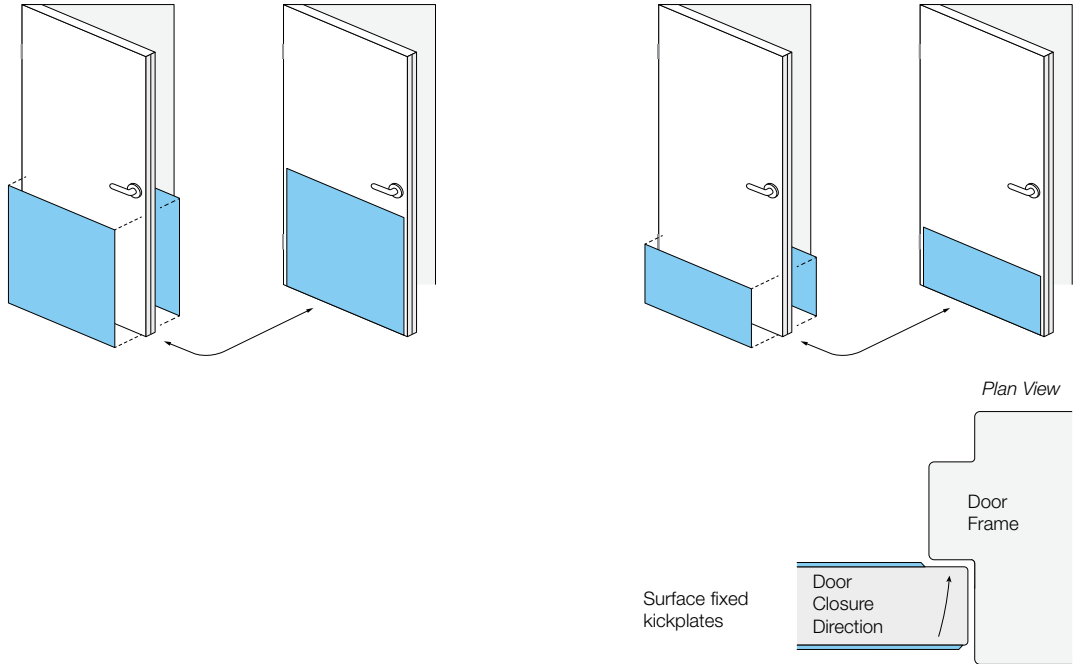
SureProtect Endure PVC-u sheet can also be cut into bespoke designs with bevelled edges to provide a smooth and safe finish. Typical examples shown. Contact Gradus Technical Support on 01625 428922 to discuss bespoke options.



Door Face Protection

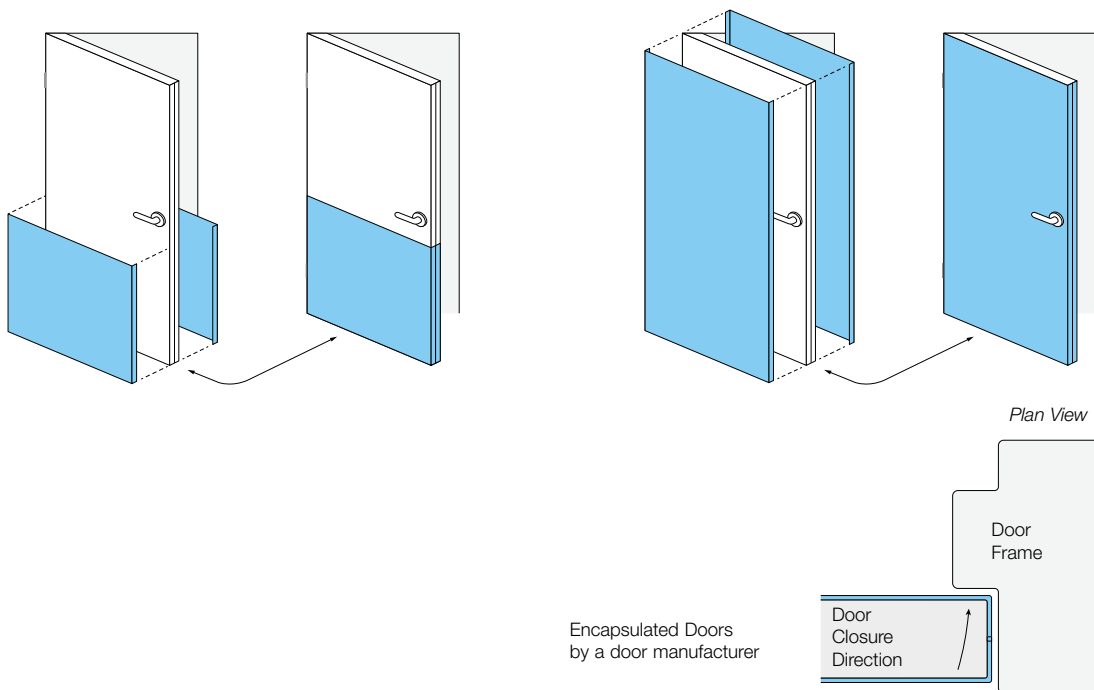
Illustrated below are door cladding installation methods for a surface mounted option and fully clad door set. SureProtect Endure sheet can be applied to new doors by the door manufacturer or surface mounted by a contractor as part of building/refurbishment works.

Door face installation options



Door face & edge installation options

'Fully Clad' with SureProtect Endure thermoformed / post formed edges applied to new doors by the door manufacturer. The provision of intumescent fire and smoke seals provided by the door manufacturer.



Fire Rated Door Edge Guards

Fire Rated Door Edge Guards

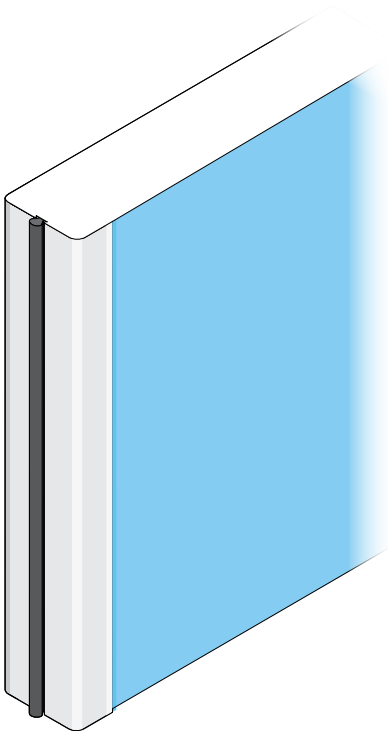
Fire Rated Door Edge Guards are fitted with intumescent fire and smoke seals which are vandal-resistant yet easy to replace. These profiles are ideal for maintaining the integrity of the fire door and can be used on the front and back edges of fire resisting door sets.

- Fire tested to BS476: Part 20 & 22 for 30 & 60 minutes
- Reduces maintenance costs and protects vulnerable entry areas
- A viable long-term solution to combat high and medium impact damage
- Reduces the risk of splintering

Standard finishes are Satin Anodised Aluminium (SAA) or standard PVC-u colours which are available to provide tonal contrast to door edges to aid the visually impaired and to meet the guidelines in BS8300:2009 + A1:2010 and Approved Document M. Profiles are available with a choice of seals dependent on application (brush, neoprene blade or blank intumescent).

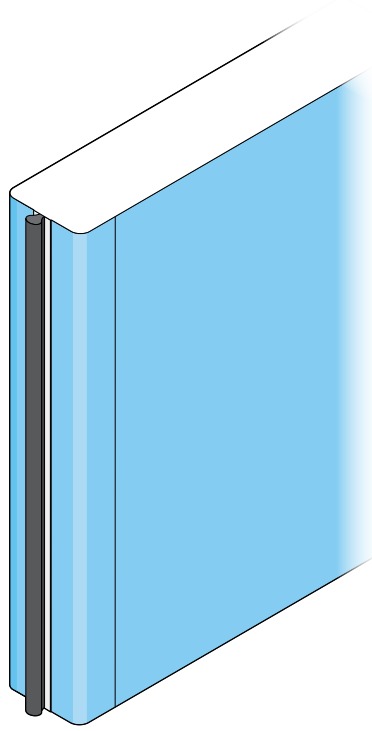
Aluminium

Aluminium: profile designed for doors (single or double doorsets) where there is the need to cut around the locks, latches and hinges.



PVC-u

PVC: radius profile designed for doors (single or double doorsets) where there is the need to cut around the locks, latches and hinges.

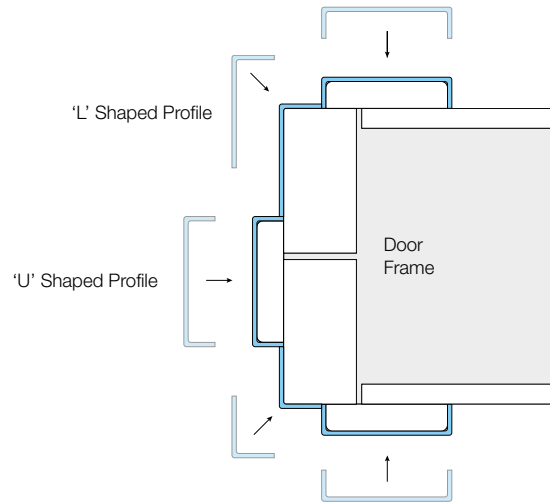


Door Frame Protection

Door frame protection

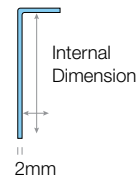
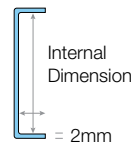
SureProtect Endure PVC-u sheet offers excellent flexibility through the versatility of forming into bespoke profiles, allowing functionality to be combined with aesthetics and offering an endless range of cladding possibilities, to protect as well as offering tonal contrast to aid the visually impaired (see pages 18 for guidance reference).

- SureProtect Endure sheet can be formed into a variety of profiles, with the most frequently used profiles being 'L' and 'U' shapes. These profiles can be used to clad a door frame by the door manufacturer, or on site with the use of thermoformed sections
- Fully cladding a door frame can be achieved by the door manufacturer in the factory or fabricated on-site by the use of thermoforming SureProtect Endure sheet material. 'Off-site' thermoforming can be produced from accurate site dimensions and/or oversized to be trimmed down on-site
- For lead times and quotations for bespoke forming, contact Gradus Technical Services on 01625 428922



'U' shaped profiles

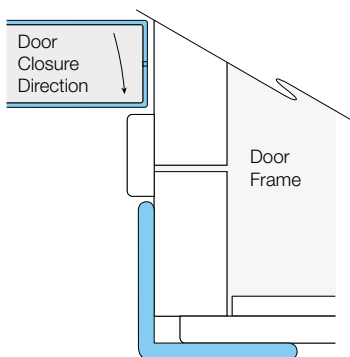
'L' shaped profiles



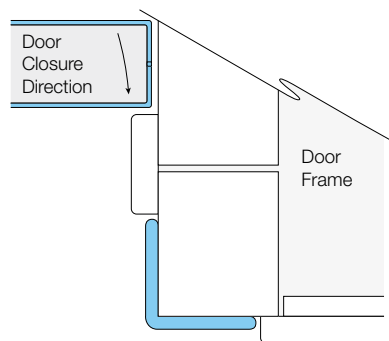
Corner guards

Door frames are often subject to high levels of impact from both pedestrian and wheeled traffic. Corner guards provide robust protection for door frame edges which are vulnerable to damage caused from a funnelling effect around door openings.

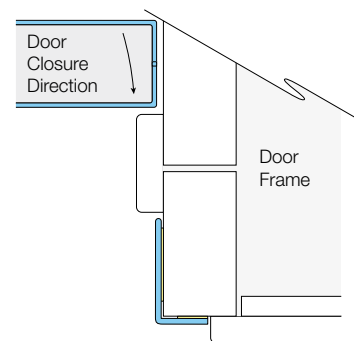
- For lead times and quotations for bespoke forming, contact Gradus Technical Services on 01625 428922



CGH 75 90
High Impact Corner Guard
(fitted over frame architrave leaving gap)
see page 55 for full product details



CGH 50 90
High Impact Corner Guard
(fitted between door stop & architrave)
see page 55 for full product details



Surface Mount
Standard Corner Guard
(trimmed down to suit site dimensions)
see page 56 for full product details

Section 6

Floor Mounted Protection

Information on floor mounted protection products including floor rails, bollards and posts.

Stainless Steel Floor Rail System



Gradus stainless steel floor systems provide the ideal protection solution for surfaces that are not suitable for wall fixings, such as counters and glass partitions. Floor systems are specifically designed for keeping wheeled traffic away from the walls and can help create a sophisticated, unobtrusive finish for a modern design scheme.

- Ideal alternative to wall guards where wall fixings are not possible such as curtain walling or glass partitioning
- 304 grade stainless steel – Satin or Polished finish
- Comprises 51mm diameter rail with various pillar options and accessories
- Standard and heavy duty pillar and bracket options available for front and back of house applications
- Supplied in 3m lengths
- Can be curved – contact Gradus for radii information
- Suitable for interior use

| Code | Description | Ø = Diameter |
|---------------|---|--------------|
| SSFR51 | Stainless Steel Rail 51mm Ø | |
| SSFR51HD/230* | Heavy Duty Pillar 230mm (h) Stainless Steel | |
| SSFR51FB/180 | Straight Floor Bracket 180mm (h) Satin Stainless Steel | |
| SSFR51SFB/180 | Slanted Floor Bracket 180mm (h) Satin Stainless Steel | |
| SSFR51A90 | 90° Corner - Internal & External | |
| SSFR51A135 | 135° Corner - Internal & External | |
| SSFR51SP | Joining Splice | |
| SSFR51EC | Flat End Cap | |
| SSFR51RET/180 | Floor Return 180mm (h) | |
| SSFR51RET/230 | Floor Return 230mm (h) | |

Heavy Duty Pillar



Slanted Floor Bracket
(straight version also available)



Stainless Steel Bollard



Ideal alternative to wall guards where surface fixings are not suitable such as counters, refrigeration units, isolated equipment and doors in hold open position

- 2 profile options available in 2 heights
- 304 grade stainless steel – Satin or Polished finish
- Comprises bollard with base plate cover for concealed fixing
- Suitable for interior use

| Code | Description | Ø = Diameter |
|------------|---------------------|--------------|
| SSP51/550 | 51mm Ø x 550mm (h) | |
| SSP51/1000 | 51mm Ø x 1000mm (h) | |
| SSP76/550 | 76mm Ø x 550mm (h) | |
| SSP76/1000 | 76mm Ø x 1000mm (h) | |



Galvanised Steel Bollard with Cover Kits

A range of heavy duty steel core bollards with high visibility cover kits offering a high performance, low maintenance solution with no repainting required.

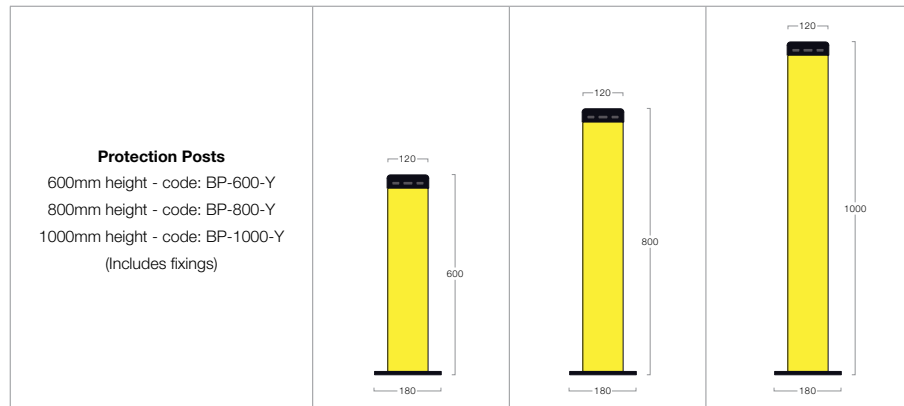
- Supplied complete with square offset baseplate, with 4 fixing positions.
- Cover kits are manufactured from medium density polyethylene and are supplied in modular sections that are easy and quick to install for either new installations or instant refurbishment of existing bollards.
- Interior and exterior use. Covers are suitable for all weather temperatures (-40 to +90 degrees) and produced from a 7 year UV stabilised material formula.

| | | | | |
|---|---|--|--|--|
| <p>Galvanised Steel Cores</p> <p>900mm height code: BCBD-168-900-G</p> <p>1200mm height code: BCBD-168-1200-G</p> <p>1500mm height code: BCBD-168-1500-G</p> | <p>Cover Kit - Black/Yellow</p> <p>960mm height code: BCK-168-960-BY</p> <p>1260mm height code: BCK-168-1260-BY</p> <p>1560mm height code: BCK-168-1560-BY</p> | <p>Cover Kit - Green/White</p> <p>960mm height code: BCK-168-960-GW</p> <p>1260mm height code: BCK-168-1260-GW</p> <p>1560mm height code: BCK-168-1560-GW</p> | <p>Cover Kit - Red/White</p> <p>960mm height code: BCK-168-960-RW</p> <p>1260mm height code: BCK-168-1260-RW</p> <p>1560mm height code: BCK-168-1560-RW</p> | <p>Optional Accessory</p> <p> 50mm</p> <p>Reflective band Silver</p> <p>As shown in photo Can be retro-fitted code: BA-REF-S</p> <hr/> <p>Steel core fixings code: FXG-TB16-150G</p> <p>Cover kit fixings Tamper proof security fixing TEK screw & black plug code: BA-SFK</p> <hr/> <p>Common uses for colours:</p> <ul style="list-style-type: none"> • Black/Yellow – hazard • Green/White – fire escape/exit • Red/White – warning |
|---|---|--|--|--|

Steel Core Protection Posts

A range of protection posts offering a medium impact, low-cost alternative to high-impact bollards. Ideal for protecting pedestrian doors, corners and vulnerable services and provide a low maintenance solution as they do not require repainting.

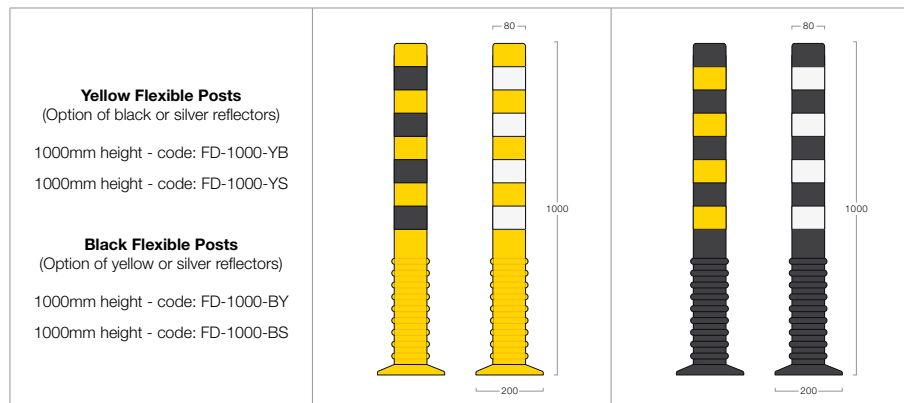
- Protection posts comprise a galvanised steel core and baseplate, a rotating polyethylene sleeve (Yellow RAL 1003) and rubber top caps incorporating diamond grade reflectors.
- Interior and exterior use. Suitable for all weather temperatures (-40 to +90 degrees).
- Surface mounted, galvanised steel baseplate (Offset 180mm square, 10mm thick).
- Overall post diameter – 120mm (Steel core 114mm diameter).



Flexible Protection Posts

Gradus Flexible Posts are designed to help control traffic flow and safely navigate vehicles in areas where risk of impact is high. They are ideal for guiding trolleys and other wheeled traffic in back-of-house service areas and for controlling vehicle movement in confined underground car parks.

- Flexible Posts are designed to alert and guide vehicle users to safe routes in confined areas.
- If a collision does occur the product will bend under impact, alerting the driver and minimising damage to the vehicle.
- Flexible Posts are extremely durable and will return back to shape following most vehicle collisions.
- Interior and exterior use.



Appendix

Additional

Additional information covering specification guidelines and material & testing information.

Specification Guidelines

The Building Regulations, British Standards and other construction guidelines for specifying the correct Gradus products

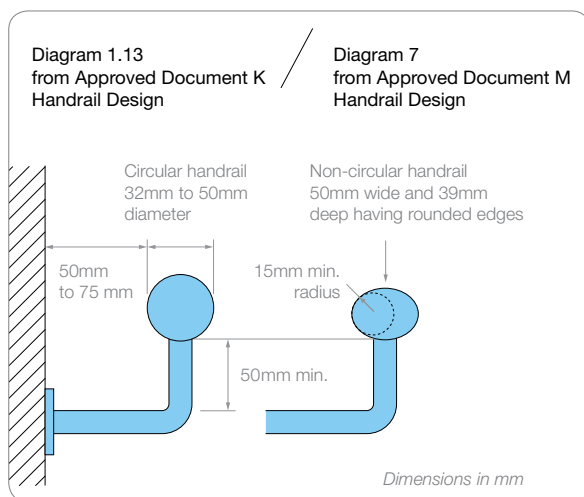
Building Regulations, British Standards and other construction guidelines such as Health Building Notes and BREEAM Technical Manuals are designed to ensure the optimum specification of products through a combination of legislative requirements and guidance.

The current standards and guidelines that influence the selection of wall protection products are listed below. Full information on the parts of these standards relevant to the selection of wall protection can be obtained by contacting Gradus Technical Support on 01625 428922.

- The Building Regulations 2010 – Approved Document M “Access to and use of buildings” (2015 edition – for use in England)
- The Building Regulations 2010 – Approved Document K “Protection from falling, collision and impact” K1 Stairs, ladders and ramps (2013 edition – for use in England)
- BS 8300:2009+A1:2010 – Design of buildings and their approaches to meet the needs of disabled people - Code of practice.
- Department of Health Estates & Facilities Division – Health Building Note 00 – Core elements. HBN 00-10: Performance requirements for building elements used in healthcare facilities - Part B: Walls & ceilings
- Department of Health Estates & Facilities Division – Health Building Note 00-09 HBN 00-09: Infection control in the built environment
- Department of Health Estates & Facilities Division – Health Building Note 04 – In-patient care. HBN 00-04: Circulation and communication spaces
- Department of Health Estates & Facilities Division – Health Building Note 03 - Mental Health. HBN 03-01: Adult acute mental health units
- Department of Health Estates & Facilities Division - Health Building Note 08 - Long term conditions/long stay care. HBN 08-01: Adult acute mental health units
- Mat (Material) 05 Designing for robustness. BREEAM New Construction Non Domestic Buildings Technical Manual – SD5073-2.0 : 2011
- DSDC (Dementia Services Development Centre) Tel: 01786 467740

Guidance for Selecting Handrails

The Building Regulations 2010 – Approved Document M “Access to and use of buildings” Volume – Buildings other than dwellings” and Approved Document K “Protection from falling, collision and impact”.



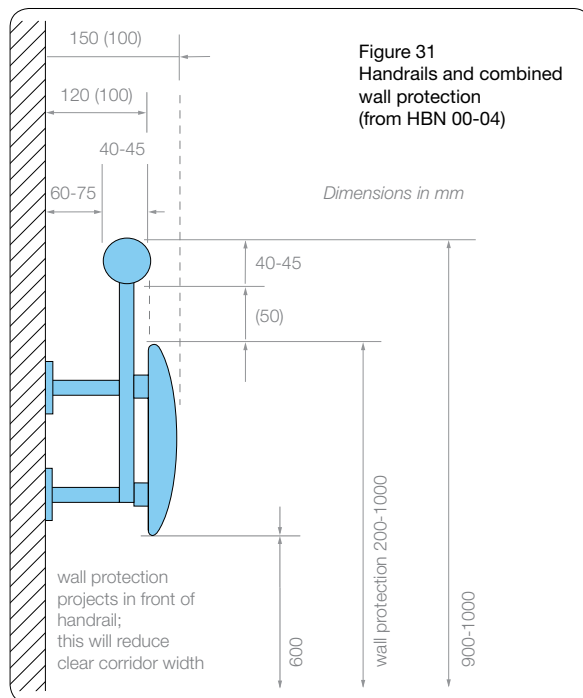
Drawings are extracts from guidance.

Sources: Building Regulations - Protection from falling, collision and impact - Approved Document K - 2013 Edition.

Building Regulations - Access to and use of buildings - Approved Document M - 2015 Edition incorporating 2010 and 2013 amendments.

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Health Building Note 00-04: Circulation and communication spaces



Drawings are extracts from guidance.

Source: Department of Health Estates & Facilities Division: Core Elements – Health Building Note 00-04: Circulation and communication spaces Crown copyright

Gradus PVC-u Product Characteristics

Gradus PVC-u products have undergone a series of rigorous tests to ensure they will perform to expectation throughout their life. Tests are undertaken in Gradus' purpose-built testing facilities, by independent testing houses and through observing and testing products in-situ. With over 50 years experience Gradus provides peace of mind to its customers.

| | |
|--|--|
| <p>PVC-u:</p> | <p>Unplasticised polyvinyl chloride is through coloured and textured to conceal the effects of impact and abrasion. Added impact modifiers enhance impact resistance.</p> <p>Fire Performance: All Gradus SureProtect PVC-u sheet material has been tested in accordance with EN ISO 11925-2:2010 and EN 13823:2010+A1:2014 and classified according to EN 13501-1:2007+A1:2009 as - Reaction to Fire classification: B-s3, d0</p> <p>Gradus PVC-u profile material has been tested in accordance with EN ISO 11925-2:2010 and EN 13823:2010+A1:2014 and classified according to EN 13501-1:2007+A1:2009 as - Reaction to Fire classification: B-s3, d0</p> <p>Chemical Resistance: Tested in accordance with EN ISO 175:2010. Plastics - determination of the effects of liquid chemicals including water. The results show that the products as tested are resistant to most commonly used chemical solutions.</p> <p>Bacterial Resistance: Tested in accordance with ISO 22196:2011. Plastics - evaluation of the action of micro-organisms. The results show that the products as tested did not support bacterial growth.</p> <p>Fungal Resistance: Tested in accordance with EN ISO 846:1997-Part A. Plastics - evaluation of the action of micro-organisms. The results show that the products as tested did not support fungal growth.</p> <p>Accelerated Wear Test: A purpose built test rig simulates the most extreme impact a wall protection product is ever likely to encounter. A hospital bed is loaded with weights to represent a person and the bed is repetitively pushed towards a wall fitted with wall protection products, increasing the weights each time. This severe type of testing ensures that the specifier is supplied a robust product which withstands the most severe impact.</p> <p>VOC Testing – SureProtect Endure & Design: France introduced regulations in 2011 relating to the labelling of building products used internally with regard to emissions of volatile polluting substances. SureProtect Endure has been tested for VOC emissions in accordance with ISO 16000. Emission test results after 28 days correspond to the emission Class A+ of the French regulation on the labelling of products for wall cladding on their emissions of volatile pollutants (April 2011).</p> |
| <p>PVC-u Moulded Accessories:</p> | <p>Returns, inside corners, outside corners and brackets are hardwearing injection moulded thermoplastic, textured and colour matched to the PVC-u.</p> |
| <p>Aluminium:</p> | <p>Durable alloy 6060-T6 to EN 573-3:2013</p> |
| <p>Product Support:</p> | <p>Colour swatches, samples and further information are available on request from: Gradus Technical Support on 01625 428922 or visit: www.gradus.com</p> |
| <p>Installation:</p> | <p>Each order is supplied with comprehensive installation instructions. Installation details and advice are also available on request from: Gradus Technical Support on 01625 428922 or visit: www.gradus.com</p> |
| <p>Maintenance:</p> | <p>Maintenance details available on request from: Gradus Technical Support on 01625 428922 or visit: www.gradus.com</p> |

Note: testing related specifically to SureProtect Pure is detailed on page 31.

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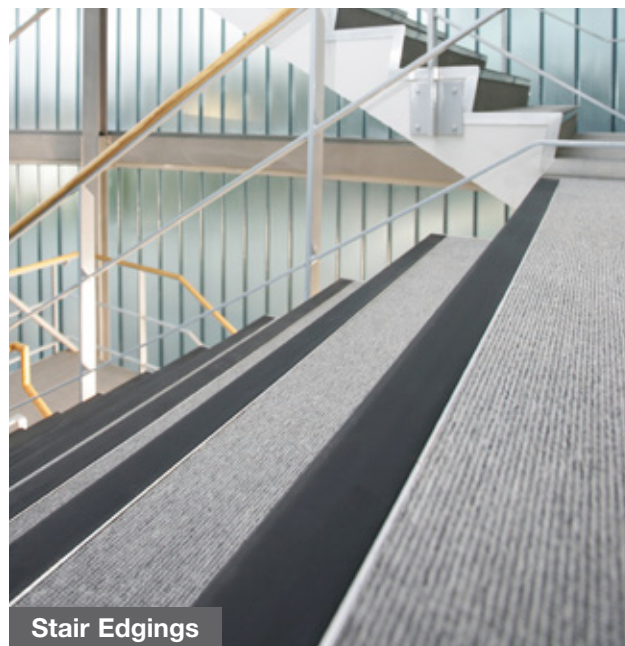
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Other products in the Gradus range

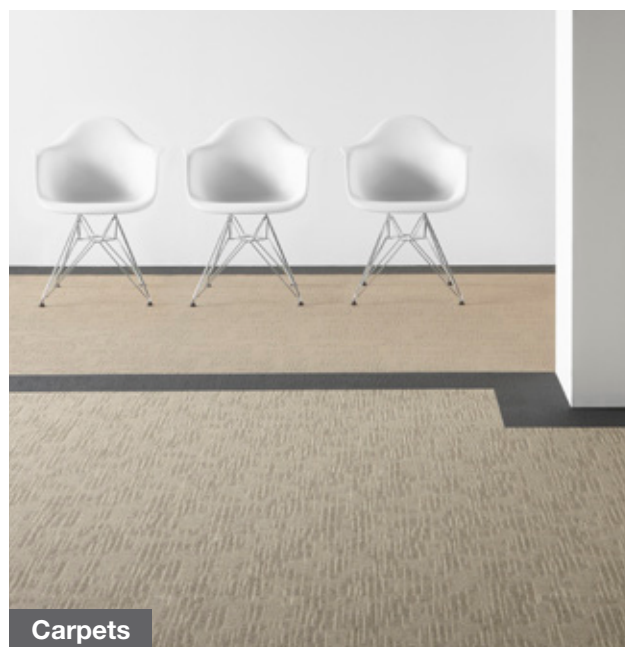
www.gradus.com
call: 01625 428922



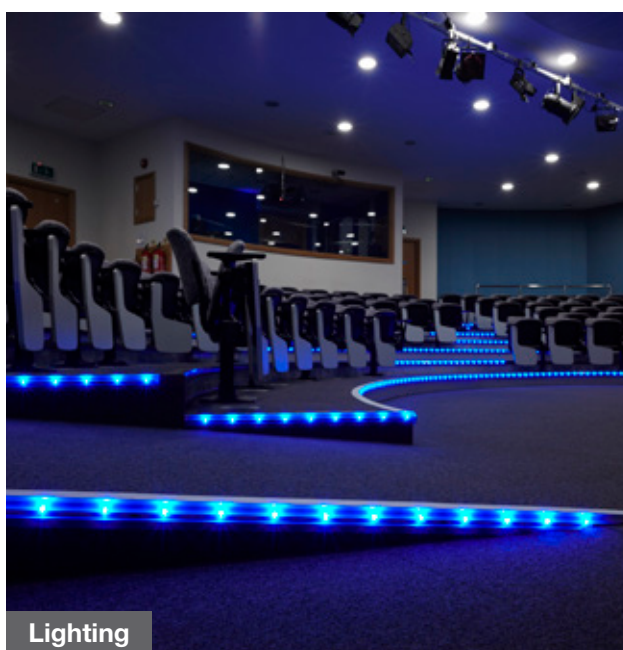
Stair Edgings



Barrier Matting



Carpets



Lighting




Safety & Protection Systems

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