

# Why use a stair edging?

- ✓ **Reduce accidents on stairs by:**

  - Providing slip-resistance at the edge of the step

  - Providing a visual contrast to highlight the edge of the step

- ✓ **Protect the step edge and surrounding floorcoverings**

- ✓ **Reduce maintenance costs**

- ✓ **Improve the aesthetics of a building**

- ✓ **Comply with the guidance in**

  - Approved Documents K and M of The Building Regulations 2010, BS 8300-2:2018, BS 9266:2013 and BS 5395-1:2010 in line with the Equality Act 2010

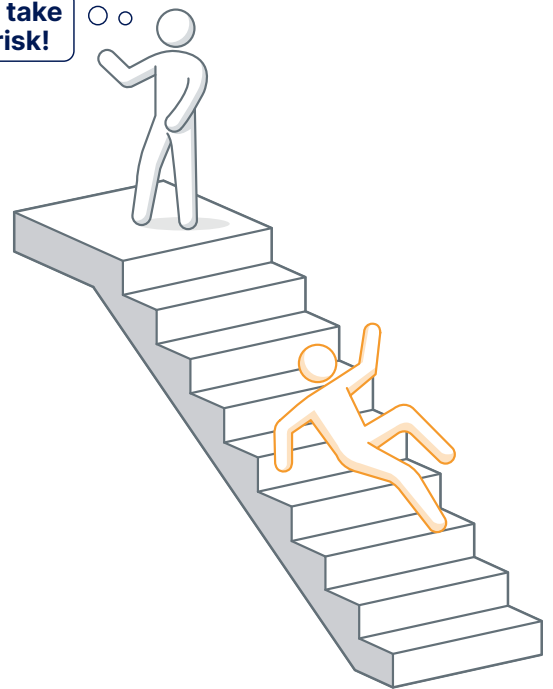
**Follow our 3 step guide to selecting the correct stair edging**



# Step 1

Choose the right stair edging and fixing method for the step

Don't take the risk!



## Specification Guidelines

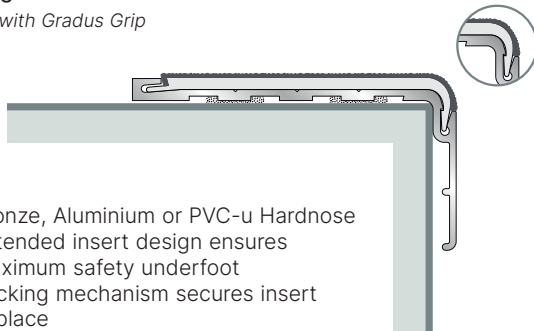
BS 8300-2:2018 refers to research undertaken by BRE. This research shows that if the depth of the tread is less than 300mm the risk of an overstep is increased. A stair nosing that **wraps around the riser** will reduce this risk by increasing the slip-resistance at the step edge.

Gradus stair nosings offer a wide range of profiles that satisfy all the latest building standards and guidelines and accommodate a wide range of floorcoverings.

## Types of Stair Nosing

### XT range

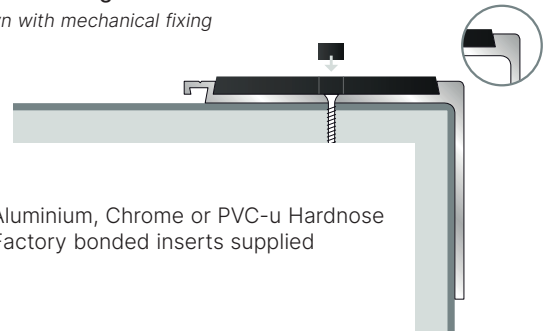
Shown with Gradus Grip



- > Bronze, Aluminium or PVC-u Hardnose
- > Extended insert design ensures maximum safety underfoot
- > Locking mechanism secures insert in place

### Traditional range

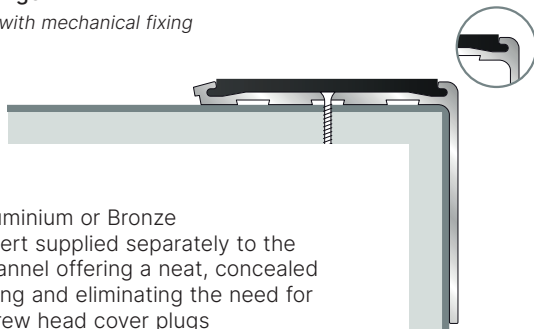
Shown with mechanical fixing



- > Aluminium, Chrome or PVC-u Hardnose
- > Factory bonded inserts supplied

### Elite range

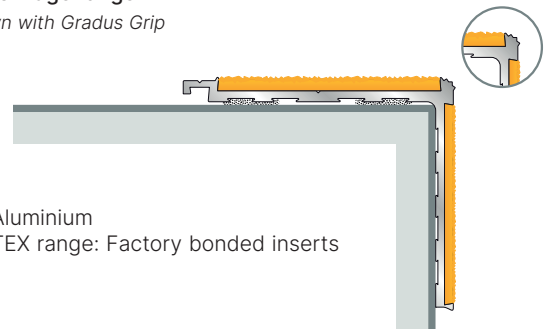
Shown with mechanical fixing



- > Aluminium or Bronze
- > Insert supplied separately to the channel offering a neat, concealed fixing and eliminating the need for screw head cover plugs
- > Mechanical lock for insert

### Trans-Edge range

Shown with Gradus Grip



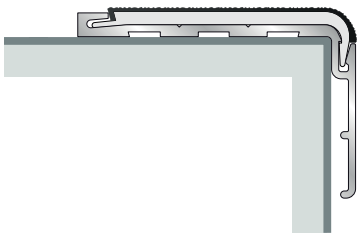
- > Aluminium
- > TEX range: Factory bonded inserts

# Step 1

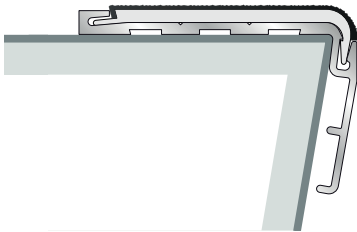
Choose the right stair edging and fixing method for the step

## Shape of Step

Select the correct stair nosing for the shape of the step – this should be a tight fit to the step to ensure that the profile does not lift or rock during use. There are four main stair nosing shapes to choose from (see below). Kinked face profiles can be used on square and some rake back stairs.



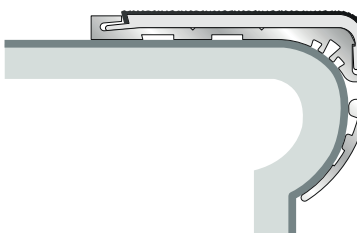
Square



Rake Back



Kinked Face



Bullnose

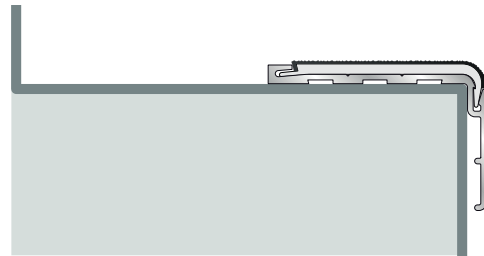
## Tread (going)

The depth of the tread (going) will also have an influence on the stair nosing selected. A study conducted by BRE found that slips on stairs are often as a result of an overstep, especially on narrow treads (less than 300mm). To help reduce the risk of slips in an overstep situation, the **XT stair nosing range incorporates a slip-resistant insert that extends around the leading edge of the profile in line with BRE recommendations.**

Gradus offers a wide range of profiles to suit different tread sizes:

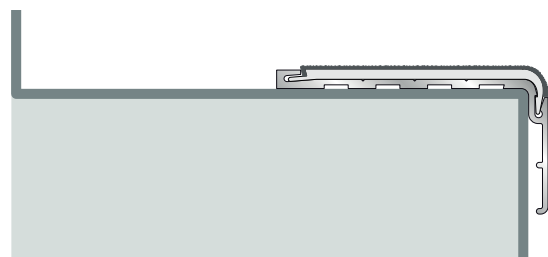
### Single Channel

- > Single channel – ideal for use on treads up to 300mm deep



### Wide, Double & Multiple Channel

- > Wide, double and multiple channels – suitable for stairs with a large going, especially if they are subject to heavy volumes of foot traffic e.g. railway stations, supermarkets, department stores, secondary and further education establishments and major hospitals.
- > When specifying double channel stair edgings, both inserts should be of the same colour and be of a contrasting colour to the surrounding floor finish.
- > When specifying multiple channel stair edgings the front insert should always be in a visually contrasting colour to the remaining inserts to ensure definition of the step edge. The remaining inserts must always be of the same colour and ideally match the surrounding floorcovering.



## Gauge

The gauge (thickness) of the stair nosing should be a flush finish to the floorcovering to avoid a trip hazard being created. When used with soft floorcoverings such as carpet and carpet tile, the gauge should achieve a flush finish with the compressed thickness of the floorcovering.

Gradus offers a range of gauges to suit the majority of commercial floorcoverings (see below).

Gauge	Typically used with
Ramp back	No floorcoverings / Resilient floorcoverings – install profile on top of the floorcovering to ensure a safe fit
2mm – 3mm	Resilient floorcoverings including LVT
4mm – 5mm	Carpet / Carpet Tile / LVT / Resilient floorcoverings with a bevelled underlay (see page 82) in heavy use areas
6mm	Carpet / Carpet Tile
7mm – 10mm	Carpet / Wood / Ceramics / Other heavy duty floorcoverings
10mm – 15mm	Ceramics / Stone / Marble

## Fixing Method

A secure fixing between the stair edging and the step is essential to ensuring a safe installation. The stair edging profile and insert, type and condition of the substrate and the application will affect the type of fixing method required.

### Adhesive only fixing - Gradus Grip

A specialist adhesive designed to securely bond stair edgings, eliminating the need for screws and screw head cover plugs, providing a neater finish. The Gradus Grip adhesive bond is available with a 10 year warranty.

### Mechanical and adhesive fixing

A combination of screw fixings, cartridge adhesive and screw head cover plugs are used to achieve a secure fixing.

To ensure the correct installation method is selected further information can be found in our installation instructions, visit [www.gradus.com](http://www.gradus.com)



- > Save time
- > Save money
- > Gradus 10 year warranty
- > Rapid curing
- > No more screws & plugs
- > Ultra strong bond

Download the NBS at [www.gradus.com](http://www.gradus.com)

Also ideal for Floor Trims,  
Corner Guards & Skirtings



Have you  
tried it yet?

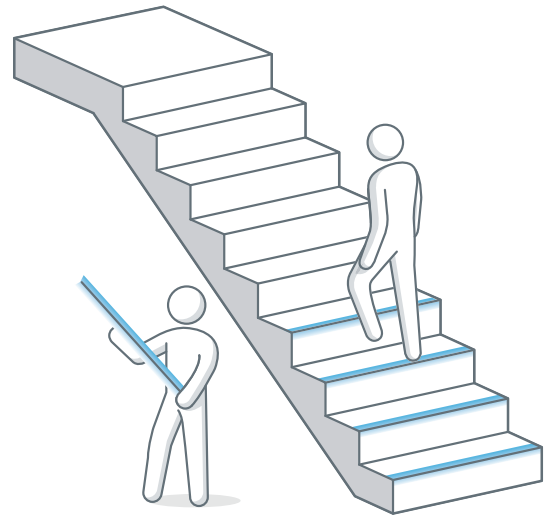


# Step 2

## Select the correct slip-resistance for the conditions

### Specification Guidelines

BS 8300-2:2018, BS 5395-1:2010 and BS 9266:2013 refers to the slip-resistance of surface finishes on stairs. A pendulum test is used to assess slip-resistance and a Pendulum Test Value (PTV) of greater than 36 is required in both dry conditions and also when the stairs are at risk of becoming wet through walked in moisture and spillages.



### Slip-resistance & Performance



An insert provides a surface that creates friction between the sole of the shoe and the step edge, hence providing slip-resistance and reducing the risk of slips on stairs. All Gradus inserts are tested for slip-resistance.

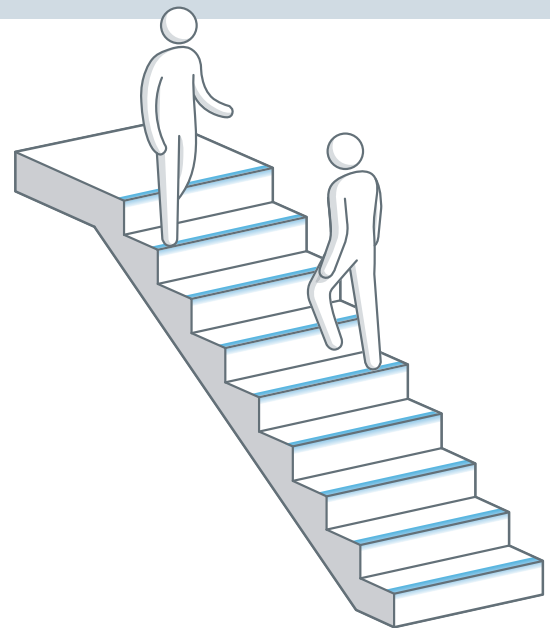
Ensure the required level of slip-resistance is achieved to reduce the risk of slips and falls on stairs by **selecting the correct insert for the environment:**

- > Interior installations – not always dry conditions. Consider whether there is a risk of the stair nosing becoming wet and select the correct insert accordingly.
- > Safety flooring – select an insert that matches or improves the slip-resistant qualities of the flooring.

Insert Type	Conditions	Applications	Material	Stair Edgings
<b>NEW</b> Metal Castellated	Interior Wet Interior Dry	Offers an ideal solution for luxury hospitality & prestigious residential applications	Bronze or Aluminium alloy	XT
Xtra-grip	Interior Wet Interior Dry	Increased surface roughness where the stair edging may become wet e.g. stairs close to entrances or where safety flooring is used. Areas where health and safety are a priority e.g. schools and hospitals	Pvc with mineral aggregate	XT & Traditional
Xtra-grip Plus	Interior Wet Interior Dry	As Xtra-grip, with the addition of an enhanced insert bond system for areas subject to more frequent cleaning e.g. catering and food preparation areas	Pvc with mineral aggregate	Traditional
Interior	Interior Dry	Areas where there is no risk that the stairs will be contaminated by moisture	Pvc with mineral inclusion - standard or grained surface	XT, Traditional & Elite
Standard Exterior	Exterior	Everyday outdoor use e.g. car park entry / exit steps	Glass reinforced polyester with fused alumina	Traditional
Heavy Duty Exterior	Exterior or Interior Heavy Traffic	Extreme exterior conditions / heavy traffic environments e.g. motorway foot bridges, railway stations, airport terminals and sports stadiums	Glass reinforced polyester with fused alumina (TEX)	TEX range

# Step 3

## Choose a colour that visually contrasts



### Specification Guidelines

BS 8300-2:2018, BS 5395-1:2010, BS 9266:2013 & Approved Documents M (ADM) & K (ADK) of The Building Regulations 2010 highlight the need to ensure there is sufficient visual contrast at the step edge, providing a safe environment for all building users.

Project Rainbow and ADM recommend that there is at least a 30 point difference between the LRVs of the stair nosing and floorcovering to achieve a suitable contrast.

## Visual Contrast

All Gradus stair nosing channel and insert colours are measured for LRVs in accordance with BS 8493:2008+A1:2010 to help achieve this difference. Gradus PVC-u Hardnose stair nosings can be selected with the channel and insert in the same colour to provide the ideal solution for creating visual contrast (picture 1), in line with Approved Documents M & K, BS 8300-2:2018, BS 5395-1:2010 and BS 9266:2013 guidelines. XT Bronze & XT Aluminium channel and insert finishes can also be matched when selected with metal castellated insert.



### Good Visual Contrast

Installed with Gradus Stair Nosings  
Picture 1

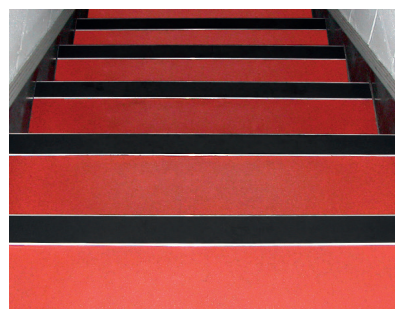


### Poor Visual Contrast

No Stair Nosings – Don't Take the Risk

## Tonal Contrast

It is important to achieve a tonal contrast between the floorcovering and the stair nosing as people with visual impairments may not be able to see some or all colours but can perceive light and dark. The photographs below show that colour contrast (picture 1) visible to fully-sighted people may not always offer a tonal contrast (picture 2) for partially-sighted people.



### Fully-sighted People

Tonal Contrast  
Picture 1



### Partially-sighted People

Poor Tonal Contrast  
Picture 2