

specification guidelines

BRE - research and guidelines - specifying the right gradus product

BRE has published an information paper (ref. IP15/03) entitled "Proprietary nosings for non-domestic stairs". This paper provides guidance to designers and building managers on the best way to assess the types of proprietary nosings that should be provided on non-domestic stairs.

Gradus has combined the key findings of this report with in-house research and development, and as a result has developed the XT range of profiles.

Detailed below is an overview and summary of the key findings in the BRE information paper.

overview

The study considered the dynamics of pedestrian stair use. Previous studies have shown that 80% of slips on stairs are likely to occur when users are descending the stairs. This usually occurs as a result of an overstep (i.e. when a substantial portion of the foot overhangs the tread). Therefore as the going (tread width) becomes narrower the likelihood of a slip incident becomes greater. Where the going is less than 300mm the risk of slip is increased. Most non-domestic stairs have a going of between 250mm and 280mm. The risk of slip is further increased if the tread surface is smooth, becomes wet or there is a lack of clear colour contrast at the step edge.

Diagram to show how a typical overstep situation can occur when the going is less than 300mm.

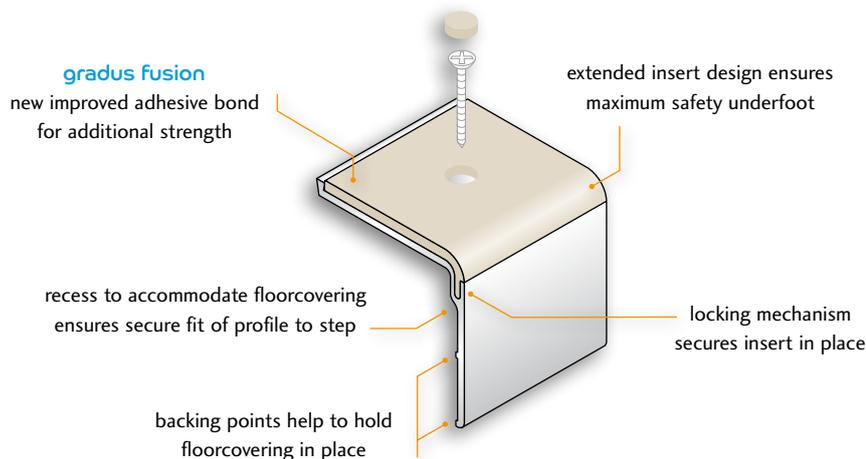


conclusion

The application of a proprietary nosing may reduce the risk of slipping against the factors highlighted above. The proprietary nosing should incorporate a slip resistant material that should extend to the point at which it meets the vertical face to minimise the risk of slip in descent. Proprietary nosings should all offer a colour contrast to clearly highlight the step edge.

gradus recommendation

The **XT range** of stair edgings offers a new edge in safety for stairs and has been developed to take into account the latest guidance contained in both the BRE information paper IP15/03 and in The Building Regulations 2000 - Approved Document M.



Extracts from BRE Information Paper IP15/03, Proprietary nosings for non-domestic stairs, copyright BRE, reproduced by permission. IP15/03 is available from IHS BRE Press, Bracknell RG12 8FB, www.ihsbrepres.com

GRADUS
contract interior solutions

Gradus Accessories Park Green Macclesfield Cheshire SK11 7LZ England UK Tel: 01625 428922 Fax: 01625 433949

www.gradusxt.com

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The Building Regulations - specifying the right gradus product

The Building Regulations are designed to ensure the optimum specification of products through a combination of legislative requirements and guidance. The following extracts have been taken from The Building Regulations 2000 and show how Gradus products can be used to help satisfy these requirements, and help achieve an inclusive environment in line with the Disability Discrimination Act 1995 (DDA). For further details on this or any other aspect of The Building Regulations or any other relevant standards contact Gradus Technical Services on 01625 428922.

Extracts from the Building Regulations

The Building Regulations 2000 - Approved Document M

"Access to and use of buildings" (Effective May 2004)

Building owners have a legal duty to ensure all people can gain access to and use a building and its facilities.

Approved documents are intended to provide guidance and much of the guidance in Approved Document M is based on BS8300:2001. The main points relating to stair and stepped access that are detailed in Approved Document M are shown below, with supporting recommendation by Gradus (shown in blue text).

Stepped Access

1-27 People with impaired sight risk tripping or losing their balance if there is no warning that steps provide a change in level.

Use of a stair edging that contrasts with the surrounding tread/riser material will help to clearly define the step edge and warn of a change in level.

1-29 Materials for treads should not present a slip hazard, especially when the surface is wet.

Gradus provides a range of inserts for use in interior (dry and wet) and exterior conditions (see page 11).

1-30 People should easily be able to appreciate where to place their feet by highlighting nosings and avoiding open risers.

Use of a stair edging that contrasts with the surrounding tread/riser material will help to clearly define the step edge. Both the insert and channel of the stair edging should be of a suitable contrast to the surrounding floor finishes. ADM directly refers to colour contrast in the definitions section stating that:

'Contrast visually, when used to indicate the visual perception of one element of a building, or fitting within the building, against another means that the difference in light reflectance value between the two surfaces is greater than 30 points.'

All Gradus stair edging colours have been measured to provide Light Reflectance Values* in order to provide the specifier with information to ensure that suitable contrast is achieved with the surrounding stair material.

**These values have been determined with reference to the CIELAB colour measurement method. The L co-ordinate represents lightness and extends from 0 (black) to 100 (white) and has been used as a measure of light reflectance value. Care should be taken that the same method of measurement has been used for the surrounding floorcovering in order to ensure that suitable colour contrast is achieved.*

1-33 (i) All nosings are made apparent by means of a permanently contrasting material 55mm wide on both the tread and the riser.

The 55mm dimension detailed is guidance only and other factors should be taken into consideration when specifying stair edgings such as step dimension, type and frequency of traffic. Communities and Local Government (formerly The Office of the Deputy Prime Minister) also acknowledges that advice given by other expert bodies should be taken into consideration, for example the JMU Access Partnership who state that the ideal dimension for a stair edging is 55mm on the tread and 30-50mm on the riser. If 55mm profiles are required they are available in the Gradus range (see pages Gradus Stair Edgings & Floor Trims Catalogue for details).

Source: Building Regulations - Access to and use of buildings - Approved Document M - 2004 Edition
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