

Building Regulations, British Standards & Guidelines relating to Stair Nosings

There are five documents, which give guidance for the design of stairs (and associated Stair Nosings) for use in buildings with public or shared use:

- Building Regulation Document K – Protection from falling
- Building Regulation Document M – Access to and use of buildings
- BS8300:2009+A1:2010 – Lighting of stepped access & slip resistance
- BS 9266:2013 – Design of accessible and adaptable general needs housing
- Building Research Information Paper – IP15/03: Proprietary nosings for non-domestic stairs

Within these regulations and guidance papers there are 5 mandatory topics, which are applicable to Stair Nosings and need to be considered. The chart below summarises the topics as they appear in each document, and a bibliography indicating where copies can be obtained is given at the foot of the next page.

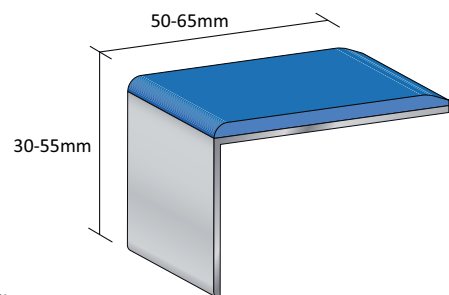
Paper/ Document:	Topic:	1. Dimensions	2. LRV	3. Slip Resistance	4. Tread Cover	5. Tactiles
BR Document K		x	x			
BR Document M		x	x	x		x
BS8300:2009+A1:2010		x	x	x		x
BS 9266:2013		x	x			
BRIP – IP15/03					x	

The following paragraphs explain what these regulations point out in detail and how the products of Quantum Flooring help to achieve the requirements. The suggested solutions will assure that regulatory guidelines for the Stair Nosings are met and thereby assist in the completion of a safe stairway.

1. The recommended dimensions of a Stair Nosing:

BRE (K&M), BS8300 and BS9266

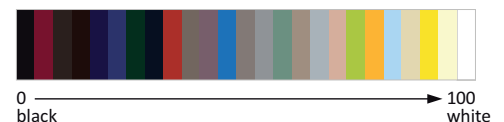
The tread should measure between 50-65mm and the riser 30-55mm. This ensures there is a large enough 'band' on the nose of the step. Quantum Flooring has a wide selection of Stair Nosings, which have these dimensions.



2) The LRV colour requirements of the Stair Nosing tread and riser:

BRE (K&M), BS8300 and BS9266

The colour of the Stair Nosing is required to differ from that of the floor covering. Every colour has a Light Reflectance Value (LRV) of between 0 (Black) and 100 (White). There must be at least 30 points difference between the Stair Nosing LRV and the floor covering, e.g. If the floor covering has a LRV of 50, then the Stair Nosing should have a LRV of between 0-20 or 80-100. This helps to create a 'ladder effect' which helps the partially sighted when ascending or descending a stair way. The Quantum Flooring range of colours all have a LRV value, details of which can be found on www.quantumflooring.co.uk.



Quantum Flooring offers 21 different tread colour options for Star Nosings and 14 for PVCu channels.

3) The slip resistance of the tread surface of a Stair Nosing:

BRE M and BS8300

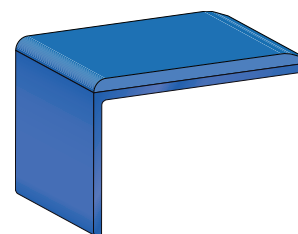
The tread material used is important for the safety and performance of a stairway. There are two recommended tests that can be carried out to determine the slip resistance of a flooring material. The pendulum test (PTV) and a surface micro roughness measurement (Rz). Either of these can be used to give an indication of the slip resistance of a material. Quantum Flooring's PVC tread material has been laboratory tested and has a PTV reading greater than 36 and a micro roughness reading, taken off used tread, of >20 Rz. Both these results classify the PVC tread material as being of a 'low slip potential' or risk.

Pendulum Test Value (PTV)	Surface Roughness (Rz)	Classification
0-24	<10µm	High Slip Potential
25-35	10µm-20µm	Moderate Slip Potential
36+	>20µm	Low Slip Potential

4) Guidance about the coverage of the tread material on the top surface of the Stair Nosing:

IP 15/06

The tread is the surface of the Stair Nosing which receives ascending or descending footfall. The Stair Nosing tread material should extend to the front edge to the point at which it meets the vertical face to minimise the risk of a slip in descent. Every profile within the Quantum Flooring Q-Range meets this guidance.

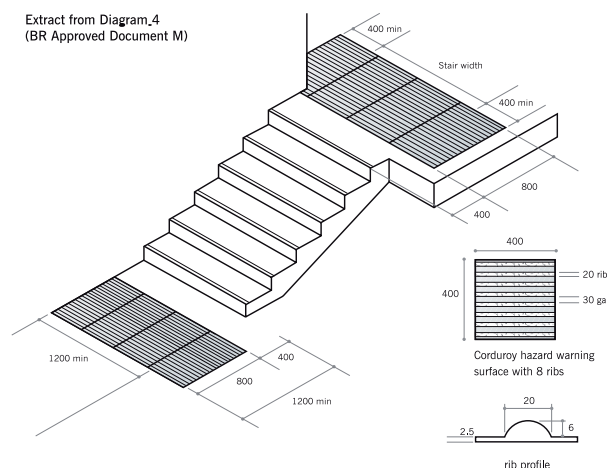


5) The assistance provided by a tactile surface at the approaches to a stairway:

BRE M and BS8300

A corduroy tactile approach should be installed as a hazard warning surface on the top and bottom approaches of the staircase, which will warn pedestrians that they are approaching a staircase. Quantum offers tactile tiles in 5 different colours to match the LRV requirement.

Extract from Diagram_4
(BR Approved Document M)



Other considerations

There are a number of other considerations that should be made, when looking to create best practice staircases, these include looking to avoid:

- Bullnosed steps - these can create a trip hazard to partially sighted users, who use their foot to find the nose edge of the step.
- Open riser steps - again these create a trip hazard.
- Shiny metal - as these can create glare in artificial or direct sunlight.
- Double channel Stair Nosings (too wide to meet the 55-65mm requirement)

For individual product information requests and further details please e-mail technical@quantum-ps.co.uk

British Standards can be obtained in PDF or hard copy formats from the BSI online shop: www.bsigroup.com/Shop or by contacting BSI Customer Services for hardcopies only: Tel: +44 (0)20 8996 9001, Email: cservices@bsigroup.com

All Building Regulations are free to download from the gov.uk website:

<http://www.planningportal.gov.uk/buildingregulations/approveddocuments/>

The Information Paper IP 15/03 is available from the breshop: <http://www.brebookshop.com/details.jsp?id=144607>