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BSI Standards Publication

Bath and shower mats – Testing – Assessment of slip resistance properties

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Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 March 2012. It was prepared by Technical Committee PRI/60, *Resilient floor coverings*. A list of organizations represented on this committee can be obtained on request to its secretary.

Information about this document

The British Standard has been developed to set minimum performance standards for bath and shower mats to help reduce the number of slip related instances. It does this by specifying testing on an inclinable ramp by at least two operators walking forwards and backwards over a mat.

Mats that achieve the performance levels specified by this standard offer a greater degree of protection against the potential to slip than a standard bath or shower tray without the mat in place.

This British Standard assumes that a mat has greater slip resistance properties than a stand-alone bath or shower tray surface (i.e. not fitted with a mat).

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

1 Scope

This British Standard specifies the classification (according to slip characteristics), test methods, marking and instructions for bath and shower mats intended for use inside bath or shower trays during bathing or showering.

It is applicable to bath and shower mats used in the domestic, self-catering and hotel environment, where the surfaces of the baths or shower trays are made from standard construction materials including acrylic, enamel and porcelain. The use of bath and shower mats in hospitals and care home environments is outside the scope of this standard.

The British Standard is applicable to mats that may or may not incorporate suction cups in their bases. The methods of assessment specified are designed to test two modes of slip failure, i.e. foot slippage and mat slippage, with failure occurring irrespective of the mat material, design and overall construction.

The mats covered by this British Standard are not designed for use on profiled textured surfaces. The standard also covers mats containing additional features (e.g. foot massagers, pillows).

Very small padded surfaces that do not meet the dimensional requirements of 5.1, e.g. splats, are not considered to be mats and are therefore outside the scope of this standard.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS EN 263, *Sanitary appliances – Crosslinked cast acrylic sheets for baths and shower trays for domestic purposes*

BS EN 360, *Personal protective equipment against falls from a height – Retractable type fall arresters*

BS EN 361, *Personal protective equipment against falls from a height – Full body harnesses*

BS EN ISO 4287, *Geometrical and product specification (GPS) – Surface texture: Profile method – Terms, definitions and surface texture parameters*

3 Terms and definitions

3.1 angle of insecurity

angle at which the slip occurs or the operator feels unsafe

3.2 comfort mat

mat that has moderate slip potential, with an angle of insecurity greater than 14° or the angle of insecurity for the acrylic sheet, whichever is the greater, and 19°

3.3 dynamic coefficient of friction (COF)

ratio of the frictional force divided by the normal force

3.4 failure mode

point at which the operator slips on the mat surface (foot slippage) or the mat slips on the standard base surface (mat slippage)