

Shutters and blinds — Measurement of operating force — Test methods

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- present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
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Summary of pages

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FOREWORD

This European Standard has been prepared by Technical Committee CEN/TC 33 "Doors, windows, shutters and building hardware", the Secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2000, and conflicting national standards shall be withdrawn at the latest by June 2001.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

This document was submitted to enquiry as prEN 12046.

It is part of a series of standards on blinds and shutters for buildings as defined in standard prEN 12216.

The methods of testing are linked to the performance requirements for internal/external blinds and shutters, as defined in the standards prEN 13120, prEN 13561 and prEN 13659.

1 SCOPE

The present standard defines the test methods to be carried out to determine the operating force required for shutters and blinds.

It applies to the following products:

- **Internal blinds:** internal venetian, roller, vertical and pleated blinds.
- **External blinds:** Folding arm awning, trellis arm awning, vertical roller awning, pivot arm awning, marquiselette, façade awning, roof light awning, verandah awning or conservatory awning, Dutch awning, insect screen awning, louvre array.
- **Shutters:** External venetian blind, roller shutter (vertical or projected) venetian shutter (vertical or projected), flat-closing concertina shutter, concertina shutter, sliding panel shutter).

Shutters with a projection system are also covered.

The test described establish the effort or force necessary to result

- in the movement or displacement of the curtain during both extension and retraction
- to project shutters,
- to tilt laths.

2 NORMATIVE REFERENCES

The present European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriated places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to the present European standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

prEN 12216 *Terminology and definitions for blinds and shutters*
prEN 13120 *Internal blinds - Performance requirements*

3 DEFINITIONS

For the purposes of this standard, the definitions in prEN 12216, prEN 13120, prEN 13561 and prEN 13659 apply, and as follows:

3.1 Operation of the curtain

Describes the following:

- **Movement of curtain**: retraction and extension of the curtain
- **Tilting of laths**: complete cycle of lath tilting mechanism from one extreme to the other and returning to the original position. With monocommand, the laths are tilted while the curtain is being extended/retracted and using the same mechanism.
- **Projection of curtain**: sloping position achieved starting from the extended position by projection means (camstay).

3.2 Angle of projection:

It is defined by:

- **the angle of curtain in the projected position:**
 - relative to the vertical for awnings fitted with arms pivoting around a fixed point - pivot arm awning, marquiselette, Dutch awning ;
 - relative to the horizontal for foldaway awnings ;
 - relative to the extended but not projected curtain for projectable shutters/awnings.
- **the angle of the roof, relative to the horizontal, for roof blinds/shutters and veranda awnings.**

3.3 Variations in operation

Mechanism with one or two cords (or with a gear) which can be fixed on the wall or headbox and allows the axis of the gear to be repositioned. It comprises an operating rod (handle side) and a joining piece (to the gear).