DRAFT INTERNATIONAL STANDARD ISO/DIS 8270
Attributed to ISO/TC **162** by the Central Secretariat (see page ii)

Voting begins on
2001-07-19

Voting terminates on
2001-12-19

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

FAST-TRACK PROCEDURE

Windows and curtain walling, doors, blinds and shutters — Determination of the resistance to soft and heavy body impact for doors

[Revision of first edition (ISO 8270:1985)]

Fenêtres et façades-rideaux, portes, stores et fermetures — Détermination de la résistance au choc de corps mou et lourd pour les portes

ICS 91.060.50

NOTE FROM THE ISO CENTRAL SECRETARIAT

This draft International Standard is submitted for voting to ISO member bodies under the fast-track procedure.

Technical Committee ISO/TC 162, *Doors and windows*, at its meeting held on 2000-02-23, decided to approve the submission of the standard EN 949, *Windows and curtain walling, doors, blinds and shutters - Determination of the resistance to soft and heavy body impact for doors*, for processing under the "Fast-track procedure", in accordance with the provisions of clause G.2, Annex G, of the ISO/IEC Directives, Part 1 (third edition, 1995).

G.2 "Fast-track procedure"

G.2.1 Proposals to apply the fast-track procedure may be made as follows.

G.2.1.1 Any P-member and any category A liaison organization of a concerned technical committee may propose that an **existing standard from any source** be submitted for vote as a draft International Standard. The proposer shall obtain the agreement of the originating organization before making a proposal. The criteria for proposing an existing standard for the fast-track procedure are a matter for each proposer to decide.

[NOTE – The Technical Management Board has waived the requirement that such proposals, in fields other than those covered by ISO/IEC JTC 1 and ISO/TC 184, be subject to prior approval by the Technical Management Board.]

G.2.1.2 An international standardizing body recognized by the ISO Council may *propose that a* ***standard developed by that body*** *be submitted for vote as a draft* International Standard.

G.2.2 The proposal shall be received by the Chief Executive Officer, who shall take the following actions:

a) settle the copyright and/or trademark situation with the organization having originated the proposed document, so that it can be freely copied and distributed to national bodies without restriction;

b) for case G.2.1.1, assess in consultation with the relevant secretariats which technical committee/subcommittee is competent for the subject covered by the proposed document; where no technical committee exists competent to deal with the subject of the document in question, the Chief Executive Officer shall refer the proposal to the Technical Management Board, which may request the Chief Executive Officer to submit the document to the approval stage and to establish an ad hoc group to deal with matters subsequently arising;

c) ascertain that there is no evident contradiction with other International Standards;

d) distribute the proposed document as a draft International Standard, (G.2.1.1), or as an FDIS (G.2.1.2), indicating (in case G.2.1.1) the technical committee/subcommittee to the domain of which the proposed document belongs;

in the case of particularly bulky documents, the Chief Executive Officer may request the necessary number of copies from the proposer.

G.2.3 The period for voting and the conditions for approval shall be as specified in 2.6 or 2.7, except that the voting period on an FDIS submitted in accordance with G.2.1.2 shall be five months. In the case where no technical committee is involved, the condition for approval of a draft International Standard is that not more than one-quarter of the total number of votes case are negative.

G.2.4 If the conditions of approval are met, the document shall progress to the approval stage (2.7) in the case of a DIS or to the publication stage (2.8) in the case of an FDIS. If not, the proposal has failed and any further action shall be decided upon by the technical committee/subcommittee to which the DIS was attributed in accordance with G.2.2 b), or by discussion between the originating organization and the office of the CEO if no technical committee was involved.

If the standard is published, its maintenance shall be handled by the technical committee/subcommittee to which the document was attributed in accordance with G.2.2 b), or, if no technical committee was involved, the approval procedure set out above shall be repeated if the originating organization decided that changes to the standard are required.

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 replaces EN 162:1985.

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 June 1999, and conflicting national standards shall be withdrawn at the latest by December 1999.

This standard is one of a series of standards for doors. The test method relates to performance requirements to be published in EN 1192 "Doors - Mechanical strength - Requirements and classification".

This standard has been prepared taking into account ISO 8270 and EN 162.

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.

Introduction

For manufacturers of door leaves whose products are not sold as part of a known doorset, or where such door leaves can be used in a sliding door assembly, provision is made for claiming compliance with the relevant requirements by the testing of such door leaves in a typical frame. Nevertheless, the fact that a particular door leaf meets with the relevant requirements in this way does not necessarily mean that a door assembly incorporating that door leaf will meet the requirements.

1 Scope

This European standard applies to all doors.

The standard specifies the method to be used to determine the damage caused by striking with a soft and heavy body, the face of a closed door leaf fixed in its own door frame as part of a doorset.

> NOTE : Such forces that might reasonably be expected from impacts by human bodies and substantial objects with similar characteristics should neither damage, nor impair the normal performance of, a door.

The method may also be used in respect of a door leaf submitted for test in a frame which the manufacturer considers appropriate to and typical for the intended utilisation.

2 Apparatus

2.1 Test surround

The surround in which the specimen is tested, which shall be sufficiently rigid to withstand the test load without deflecting to an extent likely to influence the test result.

2.2 Impact equipment

Impact body of total mass (30 ± 0,6)kg consisting of a spherical leather bag of diameter approximately 350 mm, containing dry sand of apparent density approximately 1500 kg/m^3 which passes through a sieve of 2 mm mesh.

Wires, pulleys, release hook and suitable height-regulating devices.

2.3 Measuring equipment

A dial or digital gauge accurate to 0,01 mm mounted at the centre of a reference bar capable of spanning the width of the door leaf.

3 Test specimens

Test specimens shall be stored and tested in a non-destructive environment within the ranges of 15 °C to 30 °C and 25 % to 75 % relative humidity.

Doors which are designed to be glazed, shall be supplied for testing with all glazing carried out in accordance with the door manufacturer's specification.

4 Procedure

The door leaf to be tested shall be closed and where applicable secured in accordance with its normal operating mode.

NOTE 1 : In its normal operating mode a door leaf can be unsecured, or secured by latch, lock, bolt or other means.

Identify the impact point. This shall occur at the centre of the door leaf. Where the impact point coincides with the handle, this shall be removed.

With the reference bar, measure any deviation in flatness across the width of the door leaf at the height of the impact point, to the nearest 0,1 mm.

Suspend the impact body as shown in figure 1 so that at rest it makes light contact with the surface of the door leaf and so that its centre of gravity is positioned on a line perpendicular to the door leaf at its centre. Raise the impact body so that the drop height *h*, with a tolerance of ± 10 mm, corresponds to the required impact energy. Release the impact body such that it strikes the door leaf at the impact point.

NOTE 2 : Repetition of this operation will necessitate re-shaping of the impact body.

Repeat the measurement of deviation in flatness across the width of the door leaf at the height of the impact point, to the nearest 0,1 mm.

5 Expression of results

Record :

- the residual deformation in flatness, across the width at the height of the impact point.

6 Test report

The test report shall contain the following information :

a) reference to this European standard ;

b) all necessary details to identify the doorset or door leaf ;

c) all relevant details concerning the type, specified dimensions, materials, form and construction of the doorset or door leaf, including the position of hardware ;

d) full details of the frame and hardware supplied if the assembly is not a doorset ;

e) the position and size of any glazed or panelled areas ;

f) laboratory storage and testing conditions ;

g) the face or faces tested and number of impacts applied to each face ;

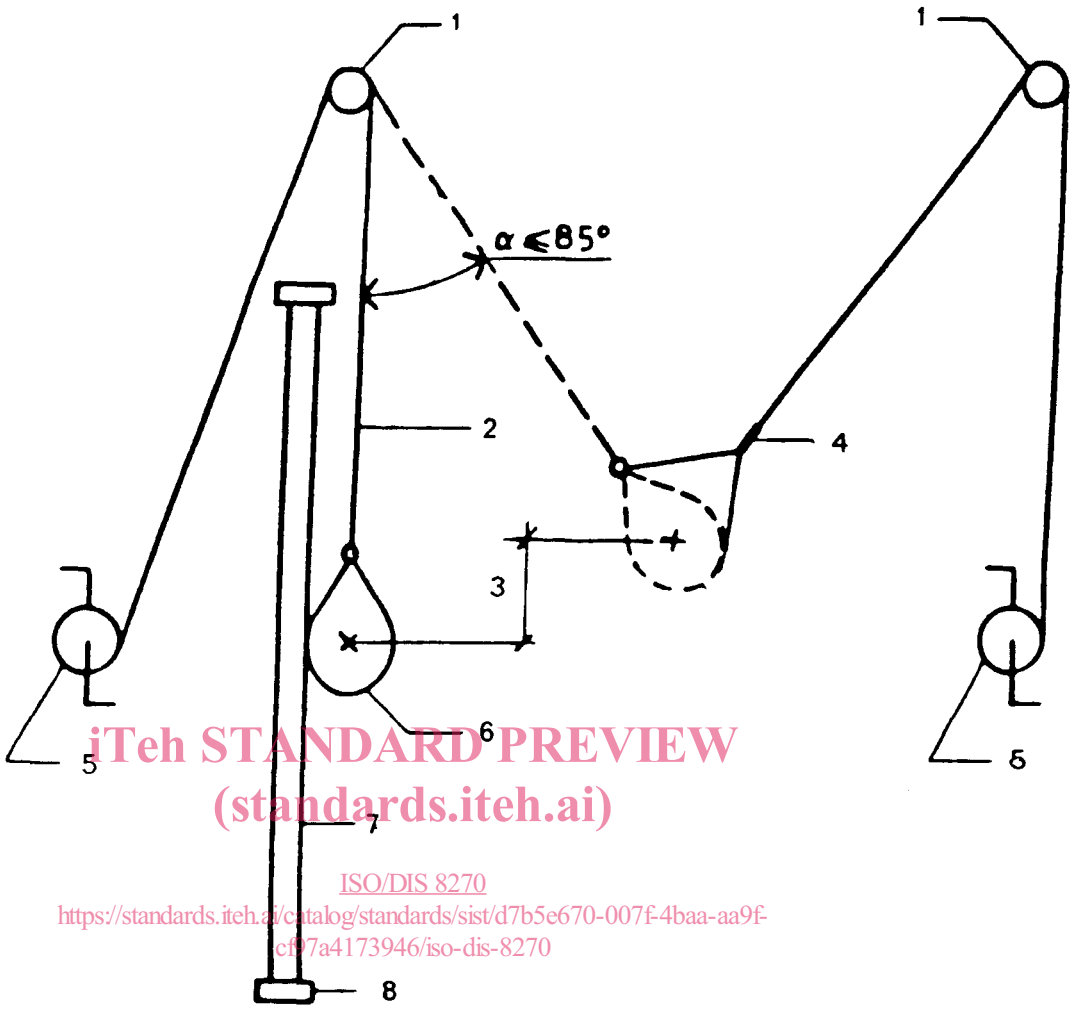
h) the impact energy in joules ;

i) the results expressed as in clause 5 ;

j) details of any damage that appeared during the test ;

k) name of testing laboratory ;

l) date of test.



1 Pulley
2 Wire
3 Drop height, $h \pm 10$ mm
4 Release hook
5 Regulating device
6 Impact body
7 Doorset
8 Test rig

Figure 1 : Apparatus for soft and heavy body impact test and test principle