DRAFT INTERNATIONAL STANDARD ISO/DIS 8271
Attributed to ISO/TC **162** by the Central Secretariat (see page ii)

Voting begins on
2002-09-26

Voting terminates on
2003-02-26

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

FAST-TRACK PROCEDURE

Door leaves — Determination of the resistance to hard body impact

[Revision of first edition (8271:1985)]

Vantaux de portes — Détermination de la résistance au choc de corps dur

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.

ISO/TC 162 *Doors and windows*, at its meeting held in September 2001, proposed that the EN standard 950, *Door leaves – Determination of the resistance to hard body impac*, be submitted for vote under the "Fast-track procedure", in accordance with the provisions of clause F.2, Annex F, of the ISO/IEC Directives, Part 1 (fourth edition, 2001) :

F.2 “Fast-track procedure”

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

F.2.1.1 Any P-member or category A liaison organization of a concerned technical committee may propose that an **existing standard from any source** be submitted for vote as an enquiry draft. 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.

F.2.1.2 An international standardizing body recognized by the ISO or IEC council board may propose that a **standard developed by that body** be submitted for vote as a final draft International Standard.

F.2.1.3 An organization having entered into a formal technical agreement with ISO or IEC may propose, in agreement with the appropriate technical committee or subcommittee, that a **draft standard developed by that organization** be submitted for vote as an enquiry draft within that technical committee or subcommittee.

F.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 cases F.2.1.1 and F.2.1.3, 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 enquiry 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 an enquiry draft (F.2.1.1 and F.2.1.3) in accordance with 2.6.1, or as a final draft International Standard (case F.2.1.2) in accordance with 2.7.1, indicating (in cases F.2.1.1 and F.2.1.3) the technical committee/subcommittee to the domain of which the proposed document belongs.

F.2.3 The period for voting and the conditions for approval shall be as specified in 2.6 for an enquiry draft and 2.7 for a final draft International Standard. In the case where no technical committee is involved, the condition for approval of a final draft International Standard is that not more than one-quarter of the total number of votes cast are negative.

F.2.4 If, for an enquiry draft, the conditions of approval are met, the draft standard shall progress to the approval stage (2.7). If not, the proposal has failed and any further action shall be decided upon by the technical committee/subcommittee to which the document was attributed in accordance with F.2.2 b).

If, for a final draft International Standard, the conditions of approval are met, the document shall progress to the publication stage (2.8). If not, the proposal has failed and any further action shall be decided upon by the technical committee/subcommittee to which the FDIS was attributed in accordance with F.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 F.2.2 b), or. if no technical committee was involved, the approval procedure set out above shall be repeated if the originating organization decides that changes to the standard are required.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 950

August 1999

ICS 91.060.50

Supersedes EN 85:1980

English version

Door leaves - Determination of the resistance to hard body impact

Vantaux de portes - Détermination de la résistance au choc de corps dur

Türblätter - Ermittlung der Widerstandsfähigkeit gegen harten Stoß

This European Standard was approved by CEN on 21 July 1999.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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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 supersedes EN 85:1980.

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 February 2000, and conflicting national standards shall be withdrawn at the latest by February 2000.

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 standard is one of a series of standards for doors.

This standard has been prepared taking into account ISO 8271 and EN 85.

1 Scope

This standard applies to all door leaves.

The standard specifies the method to be used to determine the damage caused to a door leaf by the impact of a hard body.

> NOTE : Such impacts, that might reasonably be expected from contact with small objects or parts of larger objects such as corners on furniture or footwear, can produce local surface failures affecting both strength and appearance. The kind of damage caused by impact can vary with the material used in the door construction.

2 Apparatus

2.1 Supports

Rigid supports to support the longer edges of the door leaf in a stable manner, when mounted horizontally.

2.2 Impact Equipment

A (50 ± 1) mm diameter steel ball of known weight, and appropriate release tower.

2.3 Measuring equipment

A dial or digital gauge accurate to 0,01 mm mounted at the centre of a 50 mm long and 12 mm wide reference bar.

A steel ruler accurate to 0,5 mm.

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.

4 Procedure

Mount the door leaf horizontally, with rigid supports under the long edges resting on a solid base.

Select one of the four aiming patterns shown in figure 1 such that the theoretically weakest point is included, and mark the 15 impact points on the surface of the door leaf. Any glazed area shall be omitted from the test, thereby reducing the number of impact points.

Impact points in the topmost row or rows of the aiming pattern shall also be omitted where the height of the door leaf is less than 2000 mm. The test area is not extended where the height is more than 2000 mm.

NOTE 1 : To facilitate the setting out of the aiming pattern, templates can be made for standard sized door leaves in accordance with figure 1. Holes of approximately 8 mm diameter are drilled in the centres of the numbered rectangles so that a marker pen can be used to indicate the selected aiming pattern onto the face of the door leaf.

Position the release tower vertically over each of the impact points in turn, and drop the steel ball from a height, measured from its underside to the surface of the door leaf, which corresponds to the required impact energy.

Where a permanent imprint is left by any impact, after 30 min measure the maximum depth of the indentation to the nearest 0,1 mm, the maximum diameter of the indentation to the nearest 1,0 mm and the maximum diameter of the cracking area to the nearest 1,0 mm.

NOTE 2 : Where impacts occur at points where the surface is uneven, e.g. at mouldings, a more general assessment of damage is permitted.

Repeat the procedure for the other face of the door leaf only if the door construction is not symmetrical.

5 Expression of results

Record :

- the measurement of indentation depth and diameter, and the diameter of cracking at each impact point ;

- calculation of the mean values and the coefficient of variation of the depths of indentations ;

- calculation of the mean values and the coefficient of variation of the diameters ~~or lengths~~ of cracks.

6 Test report

The test report shall contain the following information :

a) reference to this standard ;

b) all necessary details to identify the door leaf ;

c) all relevant details concerning the type, specified dimensions, materials, form and construction of the door leaf ;

d) position and size of any glazed areas omitted from the test ;

e) laboratory storage and testing conditions ;

f) the number and position of impact points used ;

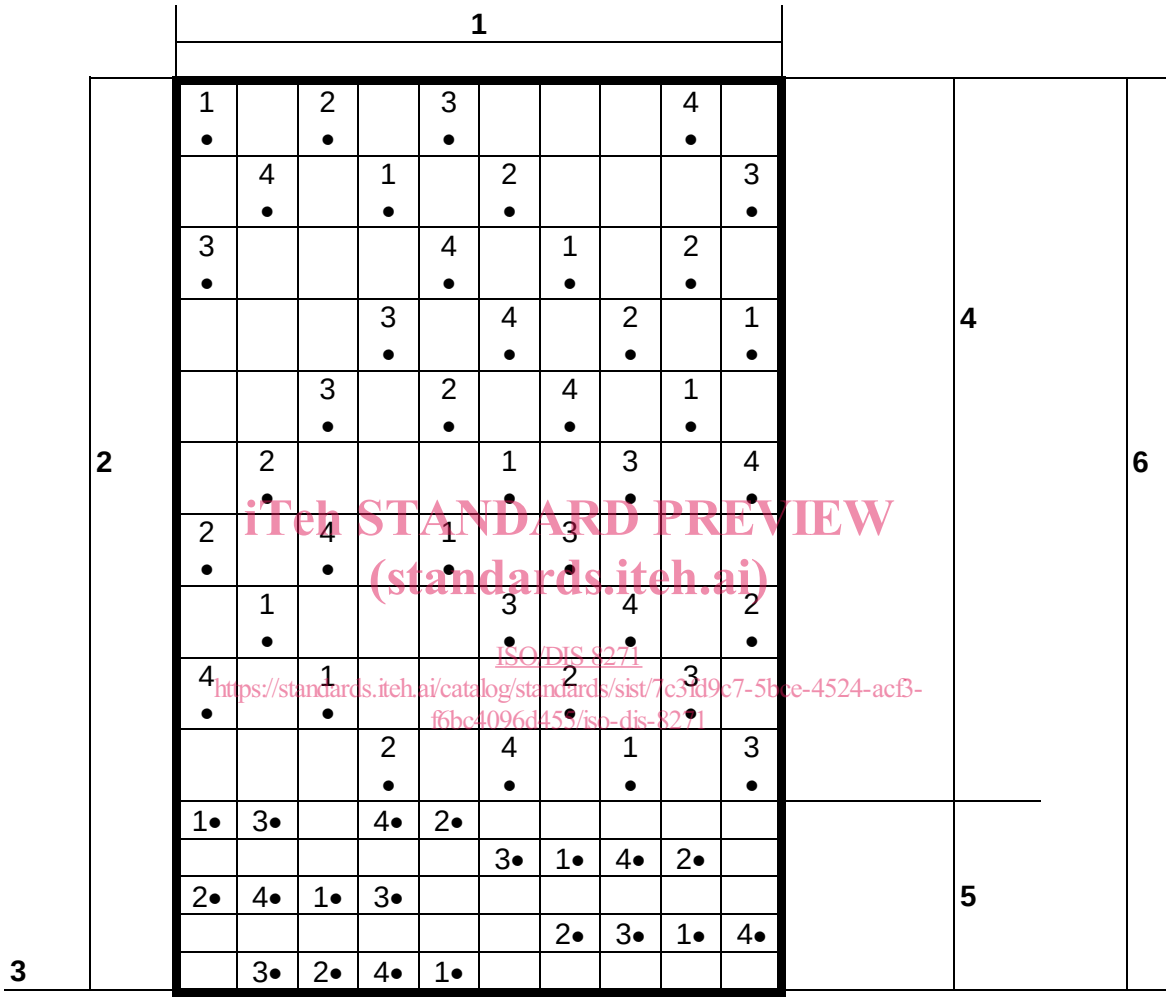
g) the impact energy in joules applied in the test ;

h) the results expressed as in clause 5 ;

i) the nature of any damage ;

j) name of testing laboratory ;

k) date of test.



1 Width of door : 10 columns
2 Total of 15 rows
3 Bottom of door
4 Main area 10 Equal divisions
5 Base area 150 mm : 5 Equal divisions
6 2000 mm

Figure 1 : Four different aiming patterns for hard body impact test, marked 1, 2, 3 or 4 respectively