

Metallic materials — Determination of plane-strain fracture toughness

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National foreword

This British Standard is the English language version of EN ISO 12737:1999. It is identical with ISO 12737:1996. It partially supersedes BS 7448-1:1991 which will be amended accordingly.

This British Standard supersedes BS 7448-1:1991 for materials and conditions for which it is appropriate to determine fracture toughness in terms of K_{Ic} alone. General determinations of fracture toughness, where the fracture behaviour determines the relevant fracture parameters (e.g. K_{Ic} , CTOD or J), are covered in the procedures in BS 7448-1, BS 7448-2 and BS 7448-4.

The UK participation in its preparation was entrusted by Technical Committee ISE/NFE/4, Mechanical testing of metals, to Subcommittee ISE/NFE/4/4, Toughness testing, which has the responsibility to:

- aid enquirers to understand the text;
- present to the responsible international/European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

A list of organizations represented on this subcommittee can be obtained on request to its secretary.

Cross-references

Attention is drawn to the fact that CEN and CENELEC standards normally include an annex which lists normative references to international publications with their corresponding European publications. The British Standards which implement these international or European publications may be found in the BSI Standards Catalogue under the section entitled “International Standards Correspondence Index”, or by using the “Find” facility of the BSI Standards Electronic Catalogue.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN ISO title page, page 2, the ISO title page, pages ii to iv, pages 1 to 13 and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

This British Standard, having been prepared under the direction of the Engineering Sector Committee, was published under the authority of the Standards Committee and comes into effect on 15 May 1999

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English version

Metallic materials — Determination of plane-strain fracture toughness

(ISO 12737:1996)

Matériaux métalliques — Détermination du
facteur d'intensité de contrainte critique
(ISO 12737:1996)

Metallische Werkstoffe — Bestimmung der
Bruchzähigkeit
(ebener Dehnungszustand)
(ISO 12737:1996)

This European Standard was approved by CEN on 8 January 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.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

The text of the International Standard from Technical Committee ISO/TC 164 “Mechanical testing of metals” of the International Organization for Standardization (ISO) has been taken over as an European Standard by CEN/CS.

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

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.

Endorsement notice

The text of the International Standard ISO 12737:1996 has been approved by CEN as a European Standard without any modification.

INTERNATIONAL
STANDARD

ISO
12737

First edition
1996-11-15

**Metallic materials — Determination
of plane-strain fracture toughness**

*Matériaux métalliques — Détermination du facteur d'intensité
de contrainte critique*



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Descriptors: Metals, metal products, tests, mechanical tests, determination, stress factor, test specimens.