



National Standards Authority of Ireland

IRISH STANDARD

**I.S. EN 10250-2:2000**

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77.140.85

**OPEN DIE STEEL FORGINGS FOR GENERAL**

**ENGINEERING PURPOSES - PART 2:**

**NON-ALLOY QUALITY AND SPECIAL STEELS**

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EUROPEAN STANDARD  
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**EN 10250-2**

October 1999

ICS 77.140.20; 77.140.85

English version

**Open die steel forgings for general engineering purposes - Part  
2: Non-alloy quality and special steels**

Pièces forgées en acier pour usage général - Partie 2:  
Aciers de qualité non alliés et aciers spéciaux

Freiformschmiedestücke aus Stahl für allgemeine  
Verwendung - Teil 2: Unlegierte Qualitäts- und Edelstähle

This European Standard was approved by CEN on 9 September 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.



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## Foreword

This European Standard has been prepared by Technical Committee ECISS/TC 28 “Steel forgings”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by April 2000, and conflicting national standards shall be withdrawn at the latest by April 2000.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association. This European Standard is considered to be a supporting standard to those application and product standards which in themselves support an essential safety requirement of a New Approach Directive and which make reference to this European Standard.

The titles of the other Parts of this European Standard are:

Part 1: General requirements

Part 3: Alloy special steels

Part 4: Stainless steels

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.

## **1 Scope**

This Part of this European Standard specifies the technical delivery requirements for open die forgings, forged bars and products pre-forged and finished in ring rolling mills, manufactured from non-alloy quality and special steels and supplied in the normalized, normalized and tempered, quenched and tempered or annealed condition

NOTE: The majority of steels listed in this Part of EN 10250, with properties in the quenched and tempered condition up to 160 mm thickness, are identical to steels specified in EN 10083-1 and -2 and more extensive information on hardenability and technological properties is given in that European Standard.

General Information on technical delivery conditions is given in EN 10021.

## **2 Normative references**

This Part of EN 10250 incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate 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 this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- |            |   |
|------------|---|
| EN 10003-1 | Metallic materials - Brinell hardness test – Part 1: Test method.                                 |
| EN 10021   | General technical delivery requirements for iron and steel products                               |
| EN 10083-1 | Quenched and tempered steels – Part 1: Technical delivery conditions for special steels           |
| EN 10083-1 | Quenched and tempered steels – Part 2: Technical delivery conditions for unalloyed quality steels |
| EN 10250-1 | Open die steel forgings for general engineering purposes – Part 1: General requirements           |

## **3 Chemical composition**

### **3.1 Cast analysis**

The chemical composition of the steel shall be determined by cast analysis and shall conform to the analysis given in table 1 (see A.7 and A.8, of EN 10250-1).

Measures should be taken to prevent the addition from the scrap, or other material used in the manufacture of the steel, of such elements which affect the hardenability, mechanical properties and applicability of the steel.

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