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**CASE HARDENING STEELS - TECHNICAL  
DELIVERY CONDITIONS**

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English Version

**Case hardening steels - Technical delivery conditions**

Aciers pour cémentation - Conditions techniques de  
livraison

Einsatzstähle - Technische Lieferbedingungen

This European Standard was approved by CEN on 29 February 2008.

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## **Foreword**

This document (EN 10084:2008) has been prepared by Technical Committee ECISS/TC 23 “Steels for heat treatment, alloy steels and free-cutting steels - Qualities and dimensions”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by October 2008, and conflicting national standards shall be withdrawn at the latest by October 2008.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 10084:1998.

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## 1 Scope

1.1 This European Standard gives the technical delivery requirements for:

- semi-finished products, hot formed, for example blooms, billets, slabs (see NOTE 2 and NOTE 3),
- bars (see NOTE 2),
- rod,
- wide flats, quarto plates,
- hot-rolled sheet/plate and strip,
- hammer and drop forgings (see NOTE 2),

manufactured from the case hardening non alloyed or alloyed steels (see NOTE 4) listed in Table 3 and supplied in one of the heat treatment conditions given for the different types of products in Table 1, lines 2 to 7 and in one of the surface conditions given in Table 2.

The steels are in general intended for the fabrication of case-hardened (see Clause 3) machine parts.

NOTE 1 European Standards relating to steels complying with the requirements for the chemical composition in Table 3 but which are supplied in other product forms or treatment conditions than given above or are intended for special applications, and European Standards for similar steel grades are listed in the Bibliography.

NOTE 2 Hammer-forged semi-finished products (blooms, billets, slabs, etc.), seamless rolled rings and hammer-forged bars are included under semi-finished products or bars and not under the term "hammer and drop forgings".

NOTE 3 Special agreements shall be made when ordering non-deformed continuously cast semi-finished products.

NOTE 4 In accordance with EN 10020, the steels covered by this European Standard are special steels.

1.2 In special cases variations in these technical delivery requirements or additions to them may form the subject of an agreement at the time of enquiry and order (see Annex A).

1.3 In addition to the specifications of this European Standard, the general technical delivery requirements of EN 10021 are applicable, unless otherwise specified.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 10020, *Definition and classification of grades of steel*

EN 10021, *General technical delivery conditions for steel products*

EN 10027-1, *Designation systems for steels - Part 1: Steel names*

EN 10027-2, *Designation systems for steel - Part 2: Numerical system*

EN 10052, *Vocabulary of heat treatment terms for ferrous products*

EN 10079, *Definition of steel products*

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