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**BRIGHT STEEL PRODUCTS - TECHNICAL
DELIVERY CONDITIONS - PART 1: GENERAL**

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English Version

Bright steel products - Technical delivery conditions - Part 1: General

Produits en acier transformés à froid - Conditions
techniques de livraison - Partie 1: Généralités

Blankstahlerzeugnisse - Technische Lieferbedingungen -
Teil 1: Allgemeines

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Foreword

This document (EN 10277-1:2008) 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of an identical text or by endorsement, at the latest by September 2008, and conflicting national standards shall be withdrawn at the latest by September 2008.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 10277-1:1999.

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This European Standard EN 10277 'Bright steel products - Technical delivery conditions' is subdivided as follows:

Part 1: General;

Part 2: Steels for general engineering purposes;

Part 3: Free-cutting steels;

Part 4: Case hardening steels;

Part 5: Steels for quenching and tempering.

During the preparation of the first edition of this European Standard there were not enough statistical data available concerning mechanical properties of bright bar products. Since then it has been recognized that the proof strength values in the cold drawn condition were too high. In addition, cyclic stresses that occur during straightening can reduce the proof strength (Bauschinger's effect), which was not taken into account when drafting the first edition of this standard. In this second edition the proof strength values of non-alloy and alloy grades in condition +QT+C in parts 3 and 5 have been adjusted downwards compared to the first edition.

1 Scope

This part of EN 10277 specifies the general technical delivery conditions for bright steel bars in the drawn, turned or ground condition, in straight lengths and of the following steel types:

- a) steels for general engineering purposes as specified in EN 10277-2;
- b) free-cutting steels as specified in EN 10277-3;
- c) case hardening steels as specified in EN 10277-4;
- d) steels for quenching and tempering as specified in EN 10277-5.

It does not cover cold rolled products and cut lengths produced from strip or sheet by cutting.

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 B).

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 606, *Bar coding - Transport and handling labels for steel products*

EN 10002-1, *Metallic materials - Tensile testing - Part 1: Method of test at ambient temperature*

EN 10020:2000, *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 steels - Part 2: Numerical system*

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

EN 10079:2007, *Definition of steel products*

EN 10083-2, *Steels for quenching and tempering – Part 2: Technical delivery conditions for non alloy steels*

EN 10083-3, *Steels for quenching and tempering – Part 3: Technical delivery conditions for alloy steels*

EN 10084, *Case hardening steels – Technical delivery conditions*

EN 10204, *Metallic products - Types of inspection documents*

prCEN/TR 10261, *Iron and steel - Review of available methods of chemical analysis*

EN 10277-2, *Bright steel products - Technical delivery conditions - Part 2: Steels for general engineering purposes*

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