

Bright steel products — Technical delivery conditions —

Part 5: Steels for quenching and tempering

ICS 77.140.20; 77.140.60

National foreword

This British Standard is the UK implementation of EN 10277-5:2008. It supersedes BS EN 10277-5:1999 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ISE/31, Wrought steels.

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

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 April 2008

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ISBN 978 0 580 52935 1

Amendments/corrigenda issued since publication

Date	Comments

English Version

Bright steel products - Technical delivery conditions - Part 5: Steels for quenching and tempering

Produits en acier transformés à froid - Conditions
techniques de livraison - Partie 5: Aciers pour trempe et
revenu

Blankstahlerzeugnisse - Technische Lieferbedingungen -
Teil 5: Vergütungsstähle

This European Standard was approved by CEN on 4 February 2008.

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Foreword

This document (EN 10277-5:2008) 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of an identical text or by endorsement, at the latest by September 2008, and conflicting national standards shall be withdrawn at the latest by September 2008.

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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.

Furthermore for this part the tensile strength values of different grades were amended in the condition +QT+C in the tables for the mechanical properties for non alloy and alloy steels.