

Timber structures — Strength graded structural timber with rectangular cross section —

Part 3: Machine grading; additional requirements for factory production control

The European Standard EN 14081-3:2005 has the status of a
British Standard

ICS 79.040

National foreword

This British Standard is the official English language version of EN 14081-3:2005. This standard together with BS EN 14081-1:2005 and BS EN 14081-2:2005 will supersede BS EN 518:1995 and BS EN 519:1995.

EN 14081 is published in four parts of which EN 14081-1 is a candidate “harmonized” European Standard under the EU Construction Products Directive (89/106/EEC), and intended to lead to CE marking. EN 14081-1 is the subject of transitional arrangements agreed under the Commission mandate. BS EN 14081 Parts 1 to 3 will supersede BS EN 518:1995 and BS EN 519:1995, which will be withdrawn in June 2007.

The UK participation in its preparation was entrusted to Technical Committee B/518, Structural timber, 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 UK interests informed;
- monitor related international and European developments and promulgate them in the UK.

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

Cross-references

The British Standards which implement international or European publications referred to in this document may be found in the *BSI Catalogue* under the section entitled “International Standards Correspondence Index”, or by using the “Search” facility of the *BSI Electronic Catalogue* or of British Standards Online.

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Summary of pages

This document comprises a front cover, an inside front cover, the EN title page, pages 2 to 17 and a back cover.

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 22 February 2006

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ISBN 0 580 47818 1

Amendments issued since publication

Amd. No.	Date	Comments

English Version

Timber structures - Strength graded structural timber with
rectangular cross section - Part 3: Machine grading; additional
requirements for factory production control

Structures en bois - Bois de structure à section
rectangulaire classé pour sa résistance - Partie 3:
Classement mécanique; exigences supplémentaires en
concernant le contrôle de la production en usine

Holzbauwerke - Nach Festigkeit sortiertes Bauholz für
tragende Zwecke mit rechteckigem Querschnitt - Teil 3:
Maschinelle Sortierung; zusätzliche Anforderungen die
werkseigene Produktionskontrolle

This European Standard was approved by CEN on 26 August 2005.

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.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard (EN 14081-3:2005) has been prepared by Technical Committee CEN/TC 124 "Timber structures", the secretariat of which is held by SFS.

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 May 2006, and conflicting national standards shall be withdrawn at the latest by August 2007.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

This European Standard supersedes EN 518:1995 and EN 519:1995.

Other parts of this European Standard are:

EN 14081-1 Timber structures - Strength graded structural timber with rectangular cross section – Part 1: General requirements,

EN 14081-2 Timber structures - Strength graded structural timber with rectangular cross section – Part 2: Machine grading; additional requirements for initial type testing,

EN 14081-4 Timber structures – Strength graded structural timber with rectangular cross section – Part 4: Machine grading; grading machine settings for machine controlled systems.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

Machine grading is in common use in a number of countries. The countries use two basic systems, referred to as 'output controlled' and 'machine controlled'. Both systems require a visual override inspection to cater for strength-reducing characteristics that are not automatically sensed by the machine.

The output-controlled system is suitable for use where the grading machines are situated in sawmills grading limited sizes, species and grades in repeated production runs of around one working shift or more. This enables the system to be controlled by testing timber specimens from the daily output. These tests together with statistical procedures are used to monitor and adjust the machine settings to maintain the required strength properties for each strength class. With this system it is permissible for machine approval requirements to be less demanding and for machines of the same type to have non-identical performance.

The machine controlled system was developed in Europe. Because of the large number of sizes, species and grades used it was not possible to carry out quality-control tests on timber specimens drawn from production. The system relies therefore on the machines being strictly assessed and controlled, and on considerable research effort to derive the machines settings, which remain constant for all machines of the same type.

The acceptability of grading machines and the derivation of settings rely on statistical procedures and the results will therefore depend on the method used. For this reason this European Standard gives appropriate statistical procedures.

The requirements in this European Standard are based on machines in current use and on future types of machines as far as these can be foreseen. It is recognised that additional clauses or standards may be required if unforeseen developments take place.