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BS EN 485-2:2013



BSI Standards Publication

Aluminium and aluminium alloys — Sheet, strip and plate

Part 2: Mechanical properties

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This British Standard is the UK implementation of EN 485-2:2013. It supersedes BS EN 485-2:2008 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee NFE/35, Light metals and their alloys.

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

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ISBN 978 0 580 82479 1

ICS 77.150.10

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 October 2013.

Amendments issued since publication

Date	Text affected
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EUROPÄISCHE NORM

October 2013

ICS 77.150.10

Supersedes EN 485-2:2008

English Version

Aluminium and aluminium alloys - Sheet, strip and plate - Part 2: Mechanical properties

Aluminium et alliages d'aluminium - Tôles, bandes et tôles
épaisses - Partie 2: Caractéristiques mécaniques

Aluminium und Aluminiumlegierungen - Bänder, Bleche
und Platten - Teil 2: Mechanische Eigenschaften

This European Standard was approved by CEN on 22 August 2013.

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Foreword

This document (EN 485-2:2013) has been prepared by Technical Committee CEN/TC 132 "Aluminium and aluminium alloys", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by April 2014, and conflicting national standards shall be withdrawn at the latest by April 2014.

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.

CEN/TC 132 affirms its policy that if a patentee refuses to grant licences on standardized products under reasonable and not discriminatory conditions, this product will be removed from the corresponding document.

This document supersedes EN 485-2:2008.

CEN/TC 132 decided to revise EN 485-2:2008 as follows:

- addition of the alloy EN AW-1350 in a new Table 18;
- addition of the alloy EN AW-4115 in a new Table 18;
- addition of the alloy EN AW-5449A in a new Table 36;
- addition of the alloy EN AW-5456 in a new Table 38;
- EN 10002-1 was replaced by EN ISO 6892-1.

EN 485 comprises the following parts under the general title, "*Aluminium and aluminium alloys — Sheet, strip and plate*":

- *Part 1: Technical conditions for inspection and delivery*
- *Part 2: Mechanical properties*
- *Part 3: Tolerances on dimensions and form for hot-rolled products*
- *Part 4: Tolerances on shape and dimensions for cold-rolled products*

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

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1 Scope

This European Standard specifies the mechanical properties of wrought aluminium and wrought aluminium alloy sheet, strip and plate for general engineering applications.

It does not apply to semi-finished rolled products in coiled form to be subjected to further rolling (reroll stock) or to special products such as corrugated, embossed, painted, sheets and strips or to special applications such as aerospace, can stock, finstock, for which mechanical properties are specified in separate European Standards.

The chemical composition limits of the alloys are specified in EN 573-3.

Temper designations are defined in Annex B, in compliance with the provisions of EN 515.

2 Normative references

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

EN 485-1, *Aluminium and aluminium alloys — Sheet, strip and plate — Part 1: Technical conditions for inspection and delivery*

EN ISO 6892-1, *Metallic materials — Tensile testing — Part 1: Method of test at room temperature (ISO 6892-1)*

ASTM G66, *Standard Test Method for Visual Assessment of Exfoliation Corrosion Susceptibility of 5xxx Series Aluminium Alloys (ASSET Test)*

ASTM G67, *Standard Test Method for Determining the Susceptibility to Intergranular Corrosion of 5xxx Series Aluminium Alloys by Mass Loss After Exposure to Nitric Acid (NAMLT Test)*

3 Requirements

The mechanical properties shall be in conformity with those specified in Clause 4 or those agreed upon between purchaser and manufacturer and stated on the order document.

4 List of alloys with mechanical property limits

4.1 General

Table 1 to Table 50 contain mechanical property limits values obtained by tensile testing according to EN ISO 6892-1 after sampling and after sample preparation according to EN 485-1.

They also contain values of bend radius and hardness following sampling and test methods as described in EN 485-1. These values are for information only.

For some alloys they contain provisions related to intergranular corrosion, exfoliation corrosion or stress corrosion testing, see also EN 485-1.