



SLOVENSKI STANDARD
kSIST FprEN 485-2:2016

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Aluminij in aluminijeve zlitine - Pločevine, trakovi in plošče - 2. del: Mehanske lastnosti

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

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

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

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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 draft European Standard is submitted to CEN members for unique acceptance procedure. It has been drawn up by the Technical Committee CEN/TC 132.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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

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European foreword

This document (FprEN 485-2:2015) has been prepared by Technical Committee CEN/TC 132 "Aluminium and aluminium alloys", the secretariat of which is held by AFNOR.

This document is currently submitted to the Unique Acceptance Procedure.

This document will supersede EN 485-2:2013.

CEN/TC 132 affirms it is policy that in the case when a patentee refuses to grant licences on standardised standard products under reasonable and not discriminatory condition, then this product should be removed from the corresponding document.

Details of any patents rights identified during the development of this document will be in the CEN list of patent declaration received (see <http://www.cencenelec.eu/ipr/Patents/PatentDeclaration/Pages/default.aspx>).

CEN/TC 132 decided to revise EN 485-2:2013 as follows:

- Addition of Alloy EN AW-5042 [AlMg 3,5 Mn] in Table 24;
- Correction of Alloy EN AW-5059 [Al Mg5,5MnZnZr] in Table 28;
- Correction of Alloy EN AW-5083 [Al Mg4,5Mn0,7] in Table 30;
- Correction of Alloy EN AW-5086 [Al Mg4] in Table 31;
- Correction of Alloy EN AW-5088 [AlMg5Mn0,4] in Table 32;
- Correction of Alloy EN AW-5383 [Al Mg4,5Mn0,9] in Table 36;
- Correction of Alloy EN AW-5456 [Al Mg5Mn1] in Table 40;
- Addition of alloy EN AW-5657 [Al 99,85Mg1] in a new Table 41;
- Addition of alloy EN AW-6056 [Al Si1MgCuMn] in a new Table 45;
- Addition of alloy EN AW-7019 [Al Zn4Mg2] in a new Table 49;
- Correction of the headers in the last column "hardness" in all tables (index a).

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*

FprEN 485-2:2015 (E)**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 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 13195, *Aluminium and aluminium alloys — Specifications for wrought and cast products for marine applications (shipbuilding, marine and offshore)*

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 supplier and purchaser and stated on the order document.

4 List of alloys with mechanical property limits**4.1 General**

Table 1 to Table 54 contain mechanical property limits values obtained by tensile testing according to EN ISO 6892-1 after sampling and after sample preparation according to FprEN 485-1.

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

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

4.2 Elongation

The $A_{50\text{mm}}$ value is the elongation measured over a gauge length of 50 mm and expressed in percent.

The A value for elongation is the elongation measured over a gauge length of $5,65 \sqrt{S_0}$ (where S_0 is the initial cross-sectional area of the test-piece), and expressed in percent.

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