

Aluminium and aluminium alloy forgings

Mechanical properties and additional properties

English version of DIN EN 586-2

DIN**EN 586-2**

ICS 77.120.10

Supersedes DIN 1749-1 and
DIN 17606-1, December 1976
editions.

Descriptors: Aluminium, aluminium alloy, forging, property, requirement.

Aluminium und Aluminiumlegierungen; Schmiedestücke; mechanische Eigenschaften und zusätzliche Eigenschaftsanforderungen

European Standard EN 586-2: 1994 has the status of a DIN Standard.*A comma has been used as the decimal marker.***National foreword**

This standard has been prepared by CEN/TC 132.

The responsible German body involved in its preparation was the *Normenausschuß Nichteisenmetalle* (Nonferrous Metals Standards Committee), Technical Committee *Schmiedevormaterial und Schmiedestücke*.

The DIN Standards corresponding to the International Standards referred to in clause 2 of the EN are as follows:

ISO Standard	DIN Standard
ISO 6506	DIN 50351, DIN EN 10003-1*)
ISO 6507-1	DIN 50133
ISO 6508	DIN 50103-1, DIN EN 10004-1*)
ISO 9591	LN 65666

Amendments

In comparison with DIN 1749-1 and DIN 17606-1, December 1976 editions, the following amendments have been made.

- The contents of the two standards have been combined to form a single standard.
- Grades Al99,5, Al99,9MgSi, AlMg5, Al99,85MgSi, AlMgSi0,5, AlMgSi0,8, AlCuMg1, AlZn4,5Mg1 and AlZnMgCu0,5 for die forgings and AlCuMg1, AlZn4,5Mg1 and AlZnMgCu0,5 for hand forgings have been dropped.
- The standard has been editorially revised.

Previous editions

DIN 1749-1: 1939-12, 1951-11, 1959-06, 1968-12, 1976-12; DIN 17606-1: 1956-11, 1973-11, 1976-12.

*) At present at the stage of draft.

Continued overleaf.
EN comprises 10 pages.

Standards referred to

(and not included in **Normative references**)

DIN 50 103-1	Rockwell hardness testing of metallic materials; C, A, B, F scales
DIN 50 133	Vickers hardness testing of metallic materials; HV 0,2 to HV 100
DIN 50 351	Brinell hardness testing of metallic materials
DIN EN 10 003-1	Metallic materials; hardness test; Brinell test
DIN EN 10 004-1	Metallic materials; Rockwell hardness test (scales A, B, C, D, E, F, G, H and K)
LN 65 666	Determination of the resistance to stress-corrosion cracking of wrought aluminium alloys for aircraft

International Patent Classification

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Descriptors: Aluminium, aluminium alloy, forging, property, requirement.

English version

Aluminium and aluminium alloys

Forgings

Part 2: Mechanical properties and additional property requirements

Aluminium et alliages d'aluminium; pièces forgées. Partie 2: Caractéristiques mécaniques et autres caractéristiques exigées

Aluminium und Aluminiumlegierungen; Schmiedestücke. Teil 2: Mechanische Eigenschaften und zusätzliche Eigenschaftsanforderungen

This European Standard was approved by CEN on 1994-06-16.

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.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Foreword

This European Standard has been prepared by CEN/TC 132 'Aluminium and aluminium alloys', the Secretariat of which is held by AFNOR.

Within its programme of work, CEN/TC 132 entrusted CEN/TC 132/WG 3 'Forgings and cast and wrought forging stock' to prepare the following standard:

EN 586-2 Aluminium and aluminium alloys; forgings. Part 2: Mechanical properties and additional property requirements

This Standard is part of a set of three standards. The other standards deal with:

EN 586-1 Aluminium and aluminium alloys; forgings. Part 1: Technical conditions for inspection and delivery

EN 586-3 Aluminium and aluminium alloys; forgings. Part 3: Tolerances on dimensions and form

This European Standard has been prepared under a mandate given to CEN by the Commission of the European Communities and the European Free Trade Association, and supports essential requirements of the relevant EC Directives.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by December 1994 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

1 Scope

This Part of EN 586 specifies the mechanical properties and additional properties of forgings in aluminium and aluminium alloys for general engineering applications. The chemical composition and temper designations for these alloys are specified in EN 573-3 and EN 515, respectively.

2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

EN 515	Aluminium and aluminium alloys; wrought products; temper designations
EN 573-3	Aluminium and aluminium alloys; chemical composition and form of wrought products. Part 3: Chemical composition
EN 586-1	Aluminium and aluminium alloys; forgings. Part 1: Technical conditions for inspection and delivery
EN 2004-1	Aerospace series; test methods for aluminium and aluminium alloy products. Part 1: Determination of electrical conductivity of wrought aluminium alloys
EN 10002-1	Metallic materials; tensile testing. Part 1: Method of test at ambient temperature
ISO 6506:1981	Metallic materials; hardness test; Brinell test
ISO 6507-1:1982	Metallic materials; hardness test; Vickers test; HV 5 to HV 100
ISO 6508:1986	Metallic materials; hardness test; Rockwell test (scales A, B, C, D, E, F, G, H, and K)
ISO 9591:1992	Corrosion of aluminium alloys; determination of resistance to stress corrosion cracking