BS EN 755-1:2016



BSI Standards Publication

Aluminium and aluminium alloys — Extruded rod/bar, tube and profiles

Part 1: Technical conditions for inspection and delivery



BS EN 755-1:2016 BRITISH STANDARD

This is a preview of "BS EN 755-1:2016". Click here to purchase the full version from the ANSI store.

This British Standard is the UK implementation of EN 755-1:2016. It supersedes BS EN 755-1:2008 which is withdrawn.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.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2016. Published by BSI Standards Limited 2016

ISBN 978 0 580 91002 9

ICS 77.150.10

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 June 2016.

Amendments issued since publication

Date Text affected

CN 755_1

This is a preview of "BS EN 755-1:2016". Click here to purchase the full version from the ANSI store.

EUROPÄISCHE NORM

June 2016

ICS 77.150.10

Supersedes EN 755-1:2008

English Version

Aluminium and aluminium alloys - Extruded rod/bar, tube and profiles - Part 1: Technical conditions for inspection and delivery

Aluminium et alliages d'aluminium - Barres, tubes et profilés filés - Partie 1 : Conditions techniques de contrôle et de livraison

Aluminium und Aluminiumlegierungen -Stranggepresste Stangen, Rohre und Profile - Teil 1: Technische Lieferbedingungen

This European Standard was approved by CEN on 11 April 2016.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of 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 United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Contents		Page
European foreword4		
1	Scope	5
2	Normative references	
3	Terms and definitions	
4	Ordering information	
5	Requirements	
5.1	Production and manufacturing processes	8
5.2	Quality control	
5.3	Chemical composition limits	
5.4	Mechanical properties	
5.5	Freedom from surface defects	
5.6	Tolerances on dimensions and form	
5.7	Stress corrosion cracking resistance	
5.8	Additional requirements	
	•	
6	Test procedures	
6.1	Sampling	
6.1.1	Samples for chemical analysis	
6.1.2	Specimens for mechanical testing	
6.1.3	Test pieces for tensile test	
6.2	Test methods	
6.2.1	Chemical composition limits	
6.2.2	Tensile testing	
6.2.3	Brinell hardness testing	
6.2.4	Measurement of dimensions	
6.2.5	Surface finish	
6.2.6	Resistance to stress corrosion cracking	
6.2.7	Additional tests	
6.3	Re-tests	
6.3.1	Chemical composition limits	
6.3.2	Mechanical properties	
6.3.3	Other properties	13
7	Inspection documents	13
8	Marking of products	13
9	Packaging	13
10	Arbitration	13
Annes	x A (normative) Location of test pieces	1.4.
Annez	Round, square and hexagonal bar	
A.1.1	For diameter (D) or width across flats (S) up to and including 40 mm	
A.1.2	For diameter (D) or width across flats (S) over 40 mm	
A.1.2 A.2	Rectangular bar	
A.2.1	For thickness up to and including 12,5 mm	
4 2 1 4 1 1 4	i or anomes up to ana meraama iz o miniminiminiminiminiminiminimini	

This is a preview of "BS EN 755-1:2016". Click here to purchase the full version from the ANSI store.

A.Z.Z	For thickness (T) over 12,5 mm and up to and including 40 mm	15
	For thickness (T) exceeding 40 mm	
	Tube	
A.4	Profiles	16
A.4.1	For thickness up to and including 12,5 mm	16
A.4.2	For thickness over 12,5 mm and up to and including 40 mm	16
A.4.3	For thickness exceeding 40 mm	17
Annex	B (normative) Resistance to stress-corrosion cracking for alloy EN AW-7075 in tempers T73, T73510 and T73511 - Electrical conductivity	18
Biblio	granhy	19

This is a preview of "BS EN 755-1:2016". Click here to purchase the full version from the ANSI store.

European foreword

This document (EN 755-1:2016) 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 December 2016, and conflicting national standards shall be withdrawn at the latest by December 2016.

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.

This document supersedes EN 755-1:2008.

The following technical modifications have been introduced during the revision:

- Clause 4, Ordering information,
- Subclause 5.5, Freedom from surface defects,
- Subclause 6.3.2, Mechanical properties.

EN 755 comprises the following parts under the general title *Aluminium and aluminium alloys* — *Extruded rod/bar, tube and profiles*:

- Part 1: Technical conditions for inspection and delivery;
- Part 2: Mechanical properties;
- Part 3: Round bars, tolerances on dimensions and form;
- Part 4: Square bars, tolerances on dimensions and form;
- Part 5: Rectangular bars, tolerances on dimensions and form;
- Part 6: Hexagonal bars, tolerances on dimensions and form;
- Part 7: Seamless tubes, tolerances on dimensions and form;
- Part 8: Porthole tubes, tolerances on dimensions and form;
- Part 9: Profiles, tolerances on dimensions and form.

According to the CEN/CENELEC Internal Regulations, the national standards organizations 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.

This is a preview of "BS EN 755-1:2016". Click here to purchase the full version from the ANSI store.

1 Scope

This European Standard specifies the technical conditions for inspection and delivery of wrought aluminium and aluminium alloy extruded rod/bar, tube and profile for general engineering applications.

This European Standard does not apply to:

- forging stock (EN 603 (all parts)),
- extruded precision profiles in alloys EN AW-6060 and EN AW-6063 (EN 12020 (all parts)).
- products delivered in coils (EN 13957),
- coiled tubes cut to length (EN 13957).

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 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 and form of products

EN 755-2, Aluminium and aluminium alloys — Extruded rod/bar, tube and profiles — Part 2: Mechanical properties

EN 755-3, Aluminium and aluminium alloys — Extruded rod/bar, tube and profiles — Part 3: Round bars, tolerances on dimensions and form

EN 755-4, Aluminium and aluminium alloys — Extruded rod/bar, tube and profiles — Part 4: Square bars, tolerances on dimensions and form

EN 755-5, Aluminium and aluminium alloys — Extruded rod/bar, tube and profiles — Part 5: Rectangular bars, tolerances on dimensions and form

EN 755-6, Aluminium and aluminium alloys — Extruded rod/bar, tube and profiles — Part 6: Hexagonal bars, tolerances on dimensions and form

EN 755-7, Aluminium and aluminium alloys — Extruded rod/bar, tube and profiles — Part 7: Seamless tubes, tolerances on dimensions and form

EN 755-8, Aluminium and aluminium alloys — Extruded rod/bar, tube and profiles — Part 8: Porthole tubes, tolerances on dimensions and form

EN 755-9, Aluminium and aluminium alloys — Extruded rod/bar, tube and profiles — Part 9: Profiles, tolerances on dimensions and form

EN 2004-1, Aerospace series — Test methods for aluminium and aluminium alloy products — Part 1: Determination of electrical conductivity of wrought aluminium alloys