



BSI Standards Publication

Aerospace series — Titanium and titanium alloys

Part 007: Remelting stock — Technical specification

National foreword

This British Standard is the UK implementation of EN 4800-007:2025. It supersedes BS EN 4800-007:2010, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee ACE/61, Metallic materials for aerospace purposes.

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

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Published by BSI Standards Limited 2025

ISBN 978 0 539 29278 7

ICS 49.025.30

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This British Standard was published under the authority of the Standards Policy and Strategy Committee on 28 February 2025.

Amendments/corrigenda issued since publication

Date	Text affected

English Version

Aerospace series - Titanium and titanium alloys - Part 007: Remelting stock - Technical specification

Série aérospatiale - Titane et alliages de titane - Partie
007 : Produits pour refusion - Spécification technique

Luft- und Raumfahrt - Titan und Titanlegierungen -
Teil 007: Materialien zur Umschmelzung - Technische
Lieferbedingungen

This European Standard was approved by CEN on 25 November 2024.

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European foreword

This document (EN 4800-007:2025) has been prepared by ASD-STAN.

After enquiries and votes carried out in accordance with the rules of this Association, this document has received the approval of the National Associations and the Official Services of the member countries of ASD-STAN, prior to its presentation to CEN.

This document shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2025, and conflicting national standards shall be withdrawn at the latest by August 2025.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 4800-007:2010.

The main changes with respect to the previous edition are as follows:

- EN 4800-007:2010-11:
 - o editorial improvements;
 - o update of Clause 2;
 - o update of the paragraph “Method of melting” in Table 1; and
 - o addition of a bibliography.

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

Introduction

This document is part of the series of EN metallic material standards for aerospace applications. The general organization of this series is described in EN 4258.

1 Scope

This document specifies the requirements for the ordering, manufacture, testing, inspection and delivery of titanium and titanium alloy remelting stock. It is applicable when referred to and in conjunction with the European material standard unless otherwise specified on the drawing, order or inspection schedule.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 2002-001,¹ *Aerospace series — Metallic materials — Test methods — Part 001: Tensile testing at ambient temperature*

EN 2002-002, *Aerospace series — Metallic materials — Test methods — Part 002: Tensile testing at elevated temperature*

EN 2002-005, *Aerospace series — Test methods for metallic materials — Part 005: Uninterrupted creep and stress-rupture testing*

EN 2032-001, *Aerospace series — Metallic materials — Part 001: Conventional designation*

EN 2032-2, *Aerospace series — Metallic materials — Part 2: Coding of metallurgical condition in delivery condition*

EN 2078, *Aerospace series — Metallic materials — Manufacturing schedule, inspection schedule, inspection and test report — Definition, general principles, preparation and approval*

EN 2955, *Aerospace series — Recycling of titanium and titanium alloy scrap*

EN 3238, *Aerospace series — Metallic materials — Test method — Shear test for wires and rivets*

EN 3976, *Aerospace series — Titanium and titanium alloys — Test method — Chemical analysis for the determination of hydrogen content*

EN 4259, *Aerospace series — Metallic materials — Definition of general terms*

TR 2410,² *Aerospace series — Metallic materials — Relationship between dimensional standards and material standards*

AMS 2750,³ *Pyrometry*

¹ Published as ASD-STAN prEN at the date of publication of this document, available at: <https://www.asd-stan.org/>.

² Published as ASD-STAN TR, available at: <https://www.asd-stan.org/>.

³ Published by Society of Automotive Engineers (SAE), available at: <https://www.sae.org/>.

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 4259 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <https://www.electropedia.org/>

3.1

melt

mass of homogeneous liquid metal from a single charge

3.2

remelt

solid metal resulting from a single melt

3.3

parent cast

cast of remelting stock to be used for the production of castings

3.4

remelting stock

metal supplied in cast or wrought form, the composition of which has been established by chemical analysis

4 Wording of order

The order shall clearly indicate:

- a) quantities to be supplied;
- b) dates of delivery;
- c) material standard number;
- d) delivery condition and metallurgical code of products;
- e) dimensions and tolerances or reference to an appropriate dimensional standard;
- f) product designation, when required;
- g) forwarding address;
- h) nature and type of packing, if required;
- i) definition and frequency of any special tests and their retest procedures, if required.

5 Health and safety

- a) The products in the delivery condition shall fulfil the current health and safety laws of the area of the country when and where it is to be delivered.
- b) A product safety data sheet shall be available.

6 Technical requirements

6.1 General

- a) The product shall be manufactured in accordance with the requirements of the relevant material standard and the applicable requirements of this document.
- b) A manufacturing schedule shall be established and applied in accordance with EN 2078.
- c) The product shall satisfy the requirements of the material standard and/or order and shall be free from irregularities prejudicial to the subsequent manufacture or use of this product.
- d) Notwithstanding previous acceptance complying with this material standard, any product that is found, at a later stage, to contain such defects shall be rejected.
- e) Unless otherwise specified, the requirements in Table 1 and Table 2 shall apply in conjunction with those of the relevant material standard. Table 1 relates to lines 1 to 29 (inclusive) of the material standard and Table 2 relates to lines 30 onwards in which the sub-line format is also used. Lines 2 to 98 may also be opened in line 100 if the material standard details specific qualification requirements.
- f) If a specific line number is not shown in Table 1 and Table 2, the requirement is stated in the material standard and/or order.
- g) The requirements of the order and/or material standard shall override the requirements of the technical specification.

6.2 Qualification requirements

Qualification requirements, when invoked by the material standard and/or order, are detailed in Table 1 and Table 2.

Unless otherwise agreed between the manufacturer and customer, the qualification phase shall be run on the first three batches.

6.3 Release requirements

6.3.1 Release tests

- a) Release testing shall be the responsibility of the manufacturer.
- b) The customer reserves the right to perform any of the inspections and/or tests required by the material standard and/or order.
- c) The test samples shall be representative of the product.