

BS EN 4800-008:2010



BSI Standards Publication

Aerospace series — Titanium and titanium alloys — Technical specification

Part 008: Pre-production and production castings

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National foreword

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

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Spécification technique - Partie 008: Pièces types et pièces
de série, moulées

Luft- und Raumfahrt - Titan und Titanlegierungen
Knetzeugnisse - Technische Lieferbedingungen - Teil
008: Ausfallmuster- und Seriengußstücke

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Foreword

This document (EN 4800-008:2010) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

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

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of an identical text or by endorsement, at the latest by May 2011, and conflicting national standards shall be withdrawn at the latest by May 2011.

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Introduction

This standard 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 standard defines the requirements for the ordering, manufacture, testing, inspection and delivery of titanium and titanium alloy pre-production and production castings. It shall be applied when referred to and in conjunction with the EN material standard unless otherwise specified on the drawing, order or inspection schedule.

2 Normative references

The following referenced documents are indispensable for the application 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, *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 2002-16, *Aerospace series — Metallic materials — Test methods — Part 16: Non-destructive testing — Penetrant testing*¹⁾

EN 2002-21, *Aerospace series — Test methods for metallic materials — Part 21: Radiographic testing of castings*¹⁾

EN 2032-1, *Aerospace series — Metallic materials — Part 1: 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 3976, *Aerospace series — Titanium and titanium alloys — Test method — Chemical analysis for the determination of hydrogen content*

EN 4258, *Aerospace series — Metallic materials — General organization of standardization — Links between types of EN standards and their use*

EN 4259, *Aerospace series — Metallic materials — Definition of general terms*¹⁾

1) Published as ASD-STAN Prestandard at the date of publication of this standard.

EN 4800-007, *Aerospace series — Titanium and titanium alloys — Technical specification — Part 007: Remelting stock*

EN 9100, *Quality Management Systems — Requirements for Aviation, Space and Defense Organizations*

EN 9133, *Aerospace series — Quality management systems — Qualification procedure for aerospace standard parts*

EN ISO 6892-1 *Metallic materials — Tensile testing — Part 1: Method of test at room temperature (ISO 6892-1:2009)*

prEN ISO 6892-2 *Metallic materials — Tensile testing — Part 2: Method of test at elevated temperature (ISO/DIS 6892-2:2009)*

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

ASTM E 1320, *Standard reference radiographs for titanium castings* ³⁾

AMS 2750, *Pyrometry* ³⁾

3 Terms and definitions

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

3.1

batch

same melt, heat treat and HIP cycle

3.2

HIP

Hot Isostatically Pressed

3.3

melt

mass of homogeneous liquid metal from a single charge

3.4

remelt

solid metal resulting from a single melt

3.5

parent cast

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

3.6

remelting stock

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

2) Published as ASD-STAN Technical Report at the date of publication of this standard.

3) Published by: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 USA.