

**IRISH STANDARD** 

I.S. EN 3685:2008 ICS 49.030.20

AEROSPACE SERIES - BOLTS IN HEAT
RESISTING STEEL FE-PA2601 (A286) CLASSIFICATION: 1 100 MPA/650 °C TECHNICAL SPECIFICATION

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**EUROPEAN STANDARD** 

**EN 3685** 

NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

April 2008

ICS 49.030.20

#### **English Version**

# Aerospace series - Bolts in heat resisting steel FE-PA2601 (A286) - Classification: 1 100 MPa/650 °C - Technical specification

Série aérospatiale - Vis en acier résistant à chaud FE-PA26HT (A286) - Classification: 1 100 MPa/650 °C -Spécification technique Luft- und Raumfahrt - Schrauben aus hochwarmfestem Stahl FE-PA2601 (A286) - Klasse: 1 100 MPa/650 °C - Technische Lieferbedingungen

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

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# EN 3685:2008 (E)

Col	Contents	
Fore	eword	3
1	Scope	4
2	Normative references	4
3	Terms and definitions	5
4	Certification and quality assurance	6
5	Technical requirements and test method	

EN 3685:2008 (E)

#### **Foreword**

This document (EN 3685:2008) 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of an identical text or by endorsement, at the latest by October 2008, and conflicting national standards shall be withdrawn at the latest by October 2008.

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EN 3685:2008 (E)

## 1 Scope

This standard specifies the technical, qualification and quality assurance requirements for bolts in material FE–PA2601 (A286) of tensile strength class 1 100 MPa at room temperature, maximum test temperature of material 650 °C.

Primarily for aerospace applications it is applicable to such bolts when referenced on the product standard or definition document.

#### 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.

ISO 2859-1, Sampling procedures for inspection by attributes — Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection.

ISO 3452, Non-destructive testing — Penetrant inspection — General principles.

ISO 4288, Geometrical Product Specifications (GPS) — Surface texture: Profile method — Rules and procedures for the assessment of surface texture.

ISO 6508-1, Metallic materials — Rockwell hardness test — Part 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T).

ISO 7961, Aerospace — Bolts — Test methods.

ISO 9000, Quality management systems — Fundamentals and vocabulary.

EN 2002-8, Aerospace series — Metallic materials — Test methods — Part 8: Micrographic determination of grain size. 1)

EN 3041, Aerospace series — Propulsion standard parts — Manufacturing process change procedure for qualified parts. <sup>2)</sup>

EN 3761, Aerospace series — Heat resisting alloy FE-PA2601 — Softened and cold worked — Bar for forged fasteners —  $D \le 50$  mm — 1 100 MPa  $\le R_m \le 1$  300 MPa. <sup>1)</sup>

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

TR 3040-1, Aerospace series — Quality Assurance — EN aerospace products — Part 1: List of approved manufacturers. <sup>3)</sup>

ASTM E 112-96, Standard Test Methods for Determining Average Grain Size. 4)

<sup>1)</sup> Published as ASD Prestandard at the date of publication of this standard.

<sup>2)</sup> In preparation at the date of publication this standard.

<sup>3)</sup> Published as ASD Technical Report at the date of publication of this standard.

<sup>4)</sup> Published by: American Society for Testing and Materials (ASTM), 1916 Race street, Philadelphia, PA 19103-1187, USA.



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