# Aerospace series - Technical drawings - Representation of parts made of composite materials - Part 1: General rules

Aerospace series - Technical drawings - Representation of parts made of composite materials - Part 1: General rules



#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 4408-001:2005 sisaldab Euroopa standardi EN 4408-001:2005 ingliskeelset teksti. This Estonian standard EVS-EN 4408-001:2005 consists of the English text of the European standard EN 4408-001:2005.

Käesolev dokument on jõustatud 15.07.2005 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. This document is endorsed on 15.07.2005 with the notification being published in the official publication of the Estonian national standardisation organisation.

Standard on kättesaadav Eesti standardiorganisatsioonist.

The standard is available from Estonian standardisation organisation.

#### Käsitlusala:

This standard specifies the general rules for the representation of parts made of composite materials, in technical drawings. It applies to aerospace structures using composites materials, and their applications when this standard is specified.

#### Scope:

This standard specifies the general rules for the representation of parts made of composite materials, in technical drawings. It applies to aerospace structures using composites materials, and their applications when this standard is specified.

ICS 01.100.99, 49.020

Võtmesõnad:

### EUROPEAN STANDARD NORME EUROPÉENNE

**EUROPÄISCHE NORM** 

EN 4408-001

May 2005

ICS 01.100.99: 49.020

#### **English version**

## Aerospace series - Technical drawings - Representation of parts made of composite materials - Part 1: General rules

Série aérospatiale - Dessins techniques - Représentation des articles en matériaux composites - Partie 1 : Règles générales

Luft- und Raumfahrt - Technische Zeichnungen -Darstellung von Teilen aus Verbundwerkstoffen - Teil 1: Allgemeine Regeln

This European Standard was approved by CEN on 15 July 2004.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

 4
4
!

#### **Foreword**

This document (EN 4408-001:2005) has been prepared by the European Association of Aerospace Manufacturers - Standardization (AECMA-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 AECMA, 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 *November 2005*, and conflicting national standards shall be withdrawn at the latest by November 2005.

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.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, oland, n Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

#### 1 Scope

This standard specifies the general rules for the representation of parts made of composite materials, in technical drawings.

It applies to aerospace structures using composites materials, and their applications when this standard is specified.

#### 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 128 (all parts), Technical drawings – General principles of presentation.

ISO 129-1, Technical drawings – Indication of dimensions and tolerances – Part 1: General principles

ISO 406, Technical drawings – Tolerancing of linear and angular dimensions.

ISO 1101, Geometrical Product Specifications (GPS) – Geometrical tolerancing – Tolerances of form, orientation, location and run-out.

ISO 3098-2, Technical product documentation – Lettering – Part 2: Latin alphabet, numerals and marks.

ISO 5455, Technical drawings - Scales.

ISO 5456-1, Technical drawings – Projection methods – Part 1: Synopsis.

ISO 5456-2, Technical drawings - Projection methods - Part 2: Orthographic representations.

ISO 5456-3, Technical drawings – Projection methods – Part 3: Axonometric representations.

ISO 5456-4, Technical drawings – Projection methods – Part 4: Central projection.

ISO 7200, Technical product documentation – Data fields in title blocks and document headers.

ISO 10579, Technical drawings – Dimensioning and tolerancing – Non-rigid parts.

EN 4408-002, Aerospace series – Technical drawings – Representation of parts made of composite materials – Part 2: Laminated parts.

EN 4408-003, Aerospace series – Technical drawings – Representation of parts made of composite materials – Part 3: Parts including core materials.

EN 4408-004, Aerospace series – Technical drawings – Representation of parts made of composite materials – Part 4: Items obtained by winding.

EN 4408-005, Aerospace series – Technical drawings – Representation of parts made of composite materials – Part 5: Seams.

EN 4408-006, Aerospace series – Technical drawings – Representation of parts made of composite materials – Part 6: Preforms.