



National Standards Authority of Ireland

IRISH STANDARD

I.S. EN 4408-002:2005

ICS 01.100.99
49.020

**AEROSPACE SERIES - TECHNICAL
DRAWINGS - REPRESENTATION OF PARTS
MADE OF COMPOSITE MATERIALS - PART 2:
LAMINATED PARTS**

National Standards
Authority of Ireland
Glasnevin, Dublin 9
Ireland

Tel: +353 1 807 3800
Fax: +353 1 807 3838
<http://www.nsai.ie>

Sales
<http://www.standards.ie>

*This Irish Standard was
published under the
authority of the National
Standards Authority of
Ireland and comes into
effect on:
July 15, 2005*

**NO COPYING WITHOUT NSAI
PERMISSION EXCEPT AS
PERMITTED BY COPYRIGHT
LAW**

© NSAI 2005

Price Code

Údarás um Chaighdeáin Náisiúnta na hÉireann

EUROPEAN STANDARD

EN 4408-002

NORME EUROPÉENNE

EUROPÄISCHE NORM

May 2005

ICS 01.100.99; 49.020

English version

Aerospace series - Technical drawings - Representation of parts made of composite materials - Part 2: Laminated parts

Série aérospatiale - Dessins techniques - Représentation
des articles en matériaux composites - Partie 2 : Articles
drapés

Luft- und Raumfahrt - Technische Zeichnungen -
Darstellung von Teilen aus Verbundwerkstoffen - Teil 2:
Schichtstoffteile

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

Contents		Page
Foreword		3
1 Scope		4
2 Normative references		4
3 Terms and definitions		4
4 General rules		4
5 Specific rules		4
5.1 Content of definition		4
5.2 Recommended workplan		4
5.3 Laminate representation		5
5.4 Analysis of the content of the laminate representation		8
5.4.1 Layer identification		8
5.4.2 Connection of plies and dimensions		9
5.4.3 Definition of laminate areas		12
5.4.4 Symbols		13
Bibliography		16

Foreword

This document (EN 4408-002:2005) 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, 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.

EN 4408-002:2005 (E)

1 Scope

This standard specifies the rules for the representation of laminated parts as well as the information to be indicated in technical drawings.

It applies to aerospace structures using laminated parts. It shall be used together with EN 4408-001.

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 4408-001, *Aerospace series – Technical drawings – Representation of parts made of composite materials – Part 1: General rules.*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 4408-001 apply.

4 General rules

The general rules for the representation of parts made of composite material are specified in standard EN 4408-001.

5 Specific rules

The representation of laminated parts basically differs from the others parts by the detailed representation of the different layers which make up the part.

5.1 Content of definition

The definition of a part includes:

- the list of the elements which make up the part;
- the notes and definition of the materials;
- the definition of the laminate areas;
- the representation and the lay-up diagram;
- the direction key(s) for laminating.

5.2 Recommended workplan

See Table 1.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-