# Aerospace series - Fibre reinforced plastics - Standard procedures for conditioning prior to testing unaged materials

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#### **EESTI STANDARDI EESSÕNA**

#### **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN
2743:2002 sisaldab Euroopa standardi EN
2743:2001 ingliskeelset teksti.

This Estonian standard EVS-EN 2743:2002 consists of the English text of the European standard EN 2743:2001.

Käesolev dokument on jõustatud 19.06.2002 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes. This document is endorsed on 19.06.2002 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 standard procedures for conditioning prior to testing unaged fibre reinforced plastic materials including reinforcing fibres and cured resin systems for aerospace applications.

#### Scope:

This standard specifies the standard procedures for conditioning prior to testing unaged fibre reinforced plastic materials including reinforcing fibres and cured resin systems for aerospace applications.

**ICS** 49.025.40

**Võtmesõnad:** air transpo, definitions, dimensions, fibre reinforced, interpretations, laminates, materials, mathematical calculations, mechanical testing, plastics, preconditioning, space transport, strength of materials, symbols, test equipment, test specimens, testing, units

### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

**EN 2743** 

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#### English version

## Aerospace series - Fibre reinforced plastics - Standard procedures for conditioning prior to testing unaged materials

Série aérospatiale - Plastiques renforcés de fibres -Procédures normalisées pour le conditionnement avant essais sur matériaux non vieillis Luft- und Raumfahrt - Faserverstärkte Kunststoffe -Standardverfahren für Vorbehandlung vor der Prüfung von nicht gealterten Werkstoffen

This European Standard was approved by CEN on 2 May 2001.

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 Management Centre 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, 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

#### **Foreword**

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After inquiries 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 June 2002, and conflicting national standards shall be withdrawn at the latest by June 2002.

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

#### 1 Scope

This standard specifies the standard procedures for conditioning prior to testing unaged fibre reinforced plastic materials including reinforcing fibres and cured resin systems for aerospace applications.

NOTE In the case of uncured preimpregnate materials, requirements for conditioning before testing are specified in the relevant technical specification or test method.

#### 2 Normative references

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

EN 3615 Aerospace series - Fibre reinforced plastics - Procedure for the determination of the conditions of exposure to humid atmosphere and the determination of moisture absorption 1)

#### 3 Definitions

For the purposes of this standard, the following definitions apply.

#### 3.1 Conditioning

The whole series of operations intended to bring a sample or specimens into a state of equilibrium with regard to temperature or temperature and humidity.

#### 3.2 As-cured condition

The condition of a specimen or sample directly after manufacture, the water content of which has never exceeded 10 % of the maximum moisture absorption at a relative humidity of 85 %.

#### 4 Principle

Exposure of an unaged material in a conditioning atmosphere which allows it to be maintained in the ascured condition or restored as near to the ascured condition as possible.

#### 5 Apparatus

- **5.1** Climatic chamber capable of maintaining the specified temperature and relative humidity, if required.
- 5.2 Sealed container such as metallized polyethylene bag or airtight metal box
- **5.3** Desiccant salt bags such as phosphorus pentoxide
- **5.4** Clean and dry absorbent cloth or filter paper

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