

Aerospace series - Fibre reinforced plastics -
Determination of the effect of exposure to humid
atmosphere on physical and mechanical characteristics

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 2823:2017 sisaldab Euroopa standardi EN 2823:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 2823:2017 consists of the English text of the European standard EN 2823:2017.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
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English Version

**Aerospace series - Fibre reinforced plastics -
Determination of the effect of exposure to humid
atmosphere on physical and mechanical characteristics**

Série aérospatiale - Plastiques renforcés de fibres -
Détermination de l'influence de l'exposition à
l'atmosphère humide sur les caractéristiques
mécaniques et physiques

Luft- und Raumfahrt - Faserverstärkte Kunststoffe -
Ermittlung des Einflusses der Auslagerung in feuchtem
Klima auf die mechanischen und physikalischen
Eigenschaften

This European Standard was approved by CEN on 6 February 2017.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

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European foreword

This document (EN 2823:2017) 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 September 2017, and conflicting national standards shall be withdrawn at the latest by September 2017.

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.

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1 Scope

This European Standard specifies the method for determining the effect of exposure to a humid atmosphere on the physical and mechanical characteristics of fibre reinforced plastics.

This standard applies to all laminates, whatever the nature of the reinforcement and organic matrix used, unless otherwise indicated in the material standard and/or technical specification.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 2743, *Aerospace series — Fibre reinforced plastics — Standard procedures for conditioning prior to testing unaged materials*

EN 2744, *Aerospace series — Non-metallic materials — Preferred test temperatures*

EN 3615, *Aerospace series — Fibre reinforced plastics — Determination of the conditions of exposure to humid atmosphere and moisture absorption* ¹⁾

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

"pilot" specimens

specimens intended to establish the exposure temperature required to achieve an equilibrium condition at the specified humidity level in a limited period of time

3.2

specimens "to be aged"

specimens intended to determine the mechanical and physical characteristics after exposure

3.3

"traveller" specimens

specimens representative of specimens "to be aged" which accompany these in the climatic chamber and are intended to monitor moisture absorption

3.4

equilibrium condition

condition of the material at a specified hygrometry when it has reached constant mass

3.5

constant mass

mass of the specimen obtained after several successive weighings carried out at regular intervals when the difference between weighings is less than a specified value

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