

Aerospace series - Fibre reinforced plastics - Test
method - Determination of bearing strength

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 6037:2015 sisaldab Euroopa standardi EN 6037:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 6037:2015 consists of the English text of the European standard EN 6037:2015.
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.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 25.11.2015.	Date of Availability of the European standard is 25.11.2015.
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ICS 49.025.40

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English Version

Aerospace series - Fibre reinforced plastics - Test method - Determination of bearing strength

Série aéronautique - Matières plastiques renforcées de
fibres - Méthode d'essai - Détermination de la
résistance au matage

Luft- und Raumfahrt - Faserverstärkte Kunststoffe -
Prüfverfahren - Bestimmung der
Lochleibungsfestigkeit

This European Standard was approved by CEN on 28 June 2014.

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European foreword

This document (EN 6037:2015) 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of an identical text or by endorsement, at the latest by May 2016, and conflicting national standards shall be withdrawn at the latest by May 2016.

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 defines the procedure to be used to determine the bearing strength of fibre composites with multidirectional reinforcement. This standard is applicable to composite laminates manufactured from unidirectional tape or woven fabric reinforcement.

This standard does not give any directions necessary to meet health and safety requirements. It is the responsibility of the user of this standard to consult and establish appropriate health and safety precautions.

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 2374, *Aerospace series — Glass fibre reinforced mouldings and sandwich composites — Production of test panels*

EN 2565, *Aerospace series — Preparation of carbon fibre reinforced resin panels for test purposes*¹⁾

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

EN 2823, *Aerospace series — Fibre reinforced plastics — Test method for the determination of the effect of exposure to humid atmosphere on physical and mechanical characteristics*¹⁾

3 Terms and definitions

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

3.1
bearing stress at a given moment during the test
load experienced by the test specimen at a particular moment divided by the nominal bolt-diameter and the specimen thickness

3.2
yield bearing strength
bearing stress which results in a 0,02 times the diameter permanent set of the joint

3.3
ultimate bearing strength
bearing stress at the maximum load during the test (see Figure 1)

1) Published as ASD-STAN Prestandard at the date of publication of this standard. <http://www.asd-stan.org/>