Aerospace series - Fibre reinforced plastics - Test method - Determination of the compression strength after impact

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NATIONAL FOREWORD

See Eesti standard EVS-EN 6038:2015 sisaldab Euroopa standardi EN 6038:2015 ingliskeelset teksti.	This Estonian standard EVS-EN 6038:2015 consists of the English text of the European standard EN 6038:2015.
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.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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English Version

Aerospace series - Fibre reinforced plastics - Test method - Determination of the compression strength after impact

Série aérospatiale - Matières plastiques renforcées de fibres - Méthode d'essai - Détermination de la résistance en compression après impact

Luft- und Raumfahrt - Faserverstärkte Kunststoffe - Prüfverfahren - Bestimmung der Restdruckfestigkeit nach Schlagbeanspruchung

This European Standard was approved by CEN on 21 June 2014.

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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 6038:2015) 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of an identical text or by endorsement, at the latest by May 2016, and conflicting national standards shall be withdrawn at the latest by May 2016.

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1 Scope

This European Standard defines a method to be used to measure the low speed impact resistance characteristics of fibre reinforced plastics.

It is applicable to composite laminates with unidirectional plies or woven fabric reinforcement.

This standard does not give any direction 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 2760, *Aerospace series — Steel FE-PL78 — 1 760 ≤ R_m ≤ 2 000 MPa — Bar — D_e ≤ 75 mm* 1)

3 Terms and definitions

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

3.1
compression strength after impact
maximum compression load experienced by the impacted specimen divided by the initial gross cross sectional area

4 Principle of the method

Subject the laminate specimen to impacts of varying energy, then measure the indentation depth and the compression strength after impact.

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