

Aerospace series - Carbon fibre thermosetting resin -
Unidirectional laminates - Compression test parallel to
fibre direction

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 2850:2017 sisaldab Euroopa standardi EN 2850:2017 ingliskeelset teksti.	This Estonian standard EVS-EN 2850:2017 consists of the English text of the European standard EN 2850:2017.
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 - Carbon fibre thermosetting resin -
Unidirectional laminates - Compression test parallel to
fibre direction**

Série aérospatiale - Fibres de carbone/résine
thermodurcissable - Stratifiés unidirectionnels - Essai
de compression parallèlement au sens des fibres

Luft- und Raumfahrt - Unidirektionale Lamine aus
Kohlenstoffasern und Reaktionsharz - Druckversuch
parallel zur Faserrichtung

This European Standard was approved by CEN on 26 June 2017.

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COMITÉ EUROPÉEN DE NORMALISATION
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Contents	Page
European foreword	3
1 Scope.....	4
2 Normative references.....	4
3 Principle of the method	5
4 Terms and definitions.....	5
5 Designation	6
6 Test pieces	6
7 Apparatus.....	8
8 Conditioning.....	8
9 Procedure	8
10 Calculation of results	9
11 Validity.....	11
12 Test report.....	12
Annex A (normative).....	13
Annex B (normative).....	15
Annex C (informative)	16

European foreword

This document (EN 2850:2017) 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of an identical text or by endorsement, at the latest by April 2018, and conflicting national standards shall be withdrawn at the latest by April 2018.

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1 Scope

This European Standard defines a method for the determination of stress at failure and Young's modulus in compression of carbon thermosetting resin unidirectional laminates.

The method only covers test pieces the axis of which is parallel to the fibre direction.

This method covers fibres (or fabrics) other than carbon, when the relevant technical specification explicitly mentions it.

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 2372 ¹⁾, *Nuts, hexagon, thin, steel, cadmium plated — Classification: 1 100 MPa/235 °C — Aerospace series* ²⁾

EN 2489, *Aerospace series — Fibre reinforced plastics — Determination of the action of test fluids*

EN 2565, *Aerospace series — Preparation of carbon fibre reinforced resin panels for test purposes* ³⁾

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 2823, *Aerospace series — Fibre reinforced plastics — Determination of the effect of exposure to humid atmosphere on physical and mechanical characteristics* ³⁾

EN 2859, *Aerospace series — Bolts, normal hexagonal head, close tolerance normal shank, short thread, in alloy steel, cadmium plated, metric series — Classification: 1 100 MPa (at ambient temperature) / 235 °C*

EN 3228, *Aerospace series — Nuts, hexagonal, plain, reduced height, normal across flats, in steel, cadmium plated — Classification: 900 MPa (at ambient temperature) / 235 °C*

EN 3783, *Aerospace series — Fibre composite materials — Normalisation of fibre dominated mechanical properties*

1) Inactive for new design, see prEN 3228.

2) Published as ASD-STAN Standard at the date of publication of this standard by AeroSpace and Defence industries Association of Europe - Standardization (ASD-STAN) (www.asd-stan.org)

3) Published as ASD-STAN Prestandard at the date of publication of this standard by AeroSpace and Defence industries Association of Europe - Standardization (ASD-STAN) (www.asd-stan.org)