

Aerospace series - Non-metallic materials - Test method
- Analysis of non-metallic materials (uncured) by
Differential Scanning Calorimetry (DSC)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 6041:2018 sisaldab Euroopa standardi EN 6041:2018 ingliskeelset teksti.	This Estonian standard EVS-EN 6041:2018 consists of the English text of the European standard EN 6041:2018.
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 - Non-metallic materials - Test method -
Analysis of non-metallic materials (uncured) by
Differential Scanning Calorimetry (DSC)**

Série aéronautique - Matériaux non métalliques -
Méthode d'essai - Analyse Enthalpique Différentielle
(AED) des matériaux non métalliques (non
polymérisés)

Luft- und Raumfahrt - Nichtmetallische Werkstoffe -
Prüfverfahren - Analyse von nichtmetallischen
Werkstoffen (ungehärtet) mittels dynamischer
Differenzkalorimetrie (DSC)

This European Standard was approved by CEN on 28 August 2017.

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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 6041:2018) 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of an identical text or by endorsement, at the latest by July 2018, and conflicting national standards shall be withdrawn at the latest by July 2018.

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1 Scope

This test method defines the procedure for the determination of the curing-characteristic and glass transition temperature of non-metallic materials (e.g. preimpregnated and neat resin systems, adhesives) for aerospace use by Differential Scanning Calorimetry (DSC).

The results obtained by this method may be useful for:

- derivation of the optimum cure cycle (only together with other test methods e.g. T_g determination)
- assessment of the condition of the resin
- assessment of the ageing behavior of the resin

This European Standard does not give any directions necessary to meet the health and safety requirements. It is the responsibility of the user of this European Standard to adopt 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 2331, *Aerospace series — Textile glass fibre preimpregnates — Test methods for the determination of the resin and fibre content and mass of fibre per unit area*

EN 2559, *Aerospace series — Carbon fibre preimpregnates — Determination of the resin and fibre content and the mass of fibre per unit area*

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

3 Symbols and definitions

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

The determination of these parameters shall be agreed upon between manufacturer and purchaser in case of non-ideal curves or different instrument types.