# Lennunduse ja kosmonautika seeria. Tekstiilklaaskiust eelimpregneeritud materjalid. Katsemeetod vaigu voolavuse määramiseks

Aerospace series - Textile glass fibre preimpregnates - Test method for the determination of the resin flow



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# **EUROPEAN STANDARD**

EUS

EN 2332:1993

# NORME EUROPÉENNE

# **EUROPÄISCHE NORM**

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Descriptors:

Aircraft industry, glass-cloth, plastics, preimpregnated products, tests, determination, resins, flows

English version

Aerospace series - Textile glass fibre preimpregnates - Test method for the determination of the resin flow

Série aérospatiale - Préimprégnés de verre textile - Méthode d'essai pour la détermination de l'écoulement de résine

Luft- und Raumfahrt - Glasfilament- Prepreg - Prümethode zur Bestimmung des Harzflusses

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## CEN

European Committee for Standardization Comité Européen de Normalisation Europäisches Komitee für Normung

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

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Foreword

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After inquiries and votes carried out in accordance with the rules of this Association, this Standard has successively received the approval of the National Associations and the Official Services of the member countries of AECMA, 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of an identical text or by endorsement, at the latest by September 1993, and conflicting national standards shall be withdrawn at the latest by September 1993.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard:

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

#### 1 Scope

- 1.1 This standard specifies a method for determining the resin flow of a textile glass fibre fabric preimpregnate, for aerospace use.
- 1.2 This standard does not give any directives necessary to meet the health and safety requirements. It is the responsibility of the user of this standard to adopt appropriate health and safety precautions.

# 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- EN 2330 Aerospace series rextile glass fibre preimpregnates Test method for the determination of the content of volatile matter
- EN 2743 Aerospace series Reinforced plastics Standard procedures for conditioning prior to testing 1)

#### 3 Definitions

A textile glass fibre preimpregnate with a thermosetting or thermoplastic resin is a material in the form of a synthetic resin impregnated textile glass fibre unithirectional sheet, tape or woven fabric and used for the manufacture of moulded components.

#### 4 Principle

Flow of the resin from a weighed test specimen under agreed conditions of temperature and pressure.

### 5 Apparatus

- 5.1 Balance with an accuracy of 0,1 mg
- 5.2 Template of standard specimen
- 5.3 Ancillary items such as sharp cutting knife and tweezers
- 5.4 Any mechanical device capable of maintaining the agreed temperature with a accuracy of  $\pm$  5 °C and the agreed pressure with an accuracy of  $\pm$  5 %
- 5.5 Metal plates not less than 200 mm × 200 mm and approximately 1,6 mm thick
- 5.6 Laboratory timer
- 5.7 Auxiliary materials
- glass fabric, ca. six plies, 200 mm × 200 mm, style 181 or similar,
- perforated polyvinyl fluoride (PVF) film, 0,1 mm thickness, 200 mm × 200 mm,
- glass fabric coated with polytetrafluoroethylene (PTFE), ca. three plies, 200 mm × 200 mm.
- 5.8 Template or punch for cutting cured specimen

<sup>1)</sup> Published as AECMA pre-standard at the date of publication of this standard