

**Lennunduse ja kosmonautika seeria.
Läbipaistvate lennukiklaasimismaterjalide
katsemeetodid. Osa 3: Murdumisnäitaja
määramine**

Aerospace series - Test methods for transparent
materials for aircraft glazing - Part 3: Determination
of refractive index

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 2155-3:2000 sisaldab Euroopa standardi EN 2155-3:1993 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 11.01.2000 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Standard on kättesaadav Eesti standardiorganisatsioonist.

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This standard is ratified with the order of Estonian Centre for Standardisation dated 11.01.2000 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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EUROPEAN STANDARD

EN 2155-3:1993

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Descriptors: Aircraft industry, glazing, transparent plastics, glass, tests, determination, refractivity

English version

**Aerospace series - Test methods for transparent
materials for aircraft glazing - Part 3:
Determination of refractive index**

Série aéronautique - Méthodes d'essais pour
matériaux transparents pour vitrages
aéronautiques - Partie 3: Détermination de
l'indice de réfraction

Luft- und Raumfahrt - Prüfverfahren für
transparente Werkstoffe zur Verglasung von
Luftfahrzeugen - Teil 3: Bestimmung des
Brechungsindex

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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

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of an identical text or by endorsement, at the latest by July 1993, and conflicting national standards shall be withdrawn at the latest by July 1993.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.

Introduction

The method described in this standard differs from ISO 489, method A, in the testing conditions.

1 Scope

This standard specifies the method used for the determination of the refractive index applicable for transparent materials used in aircraft glazing.

2 Purpose of the method

This method is used for the control of purity and composition of materials.

The refractive index shall be considered when designing the parts.

3 Definition

The refractive index n_D^{23} is the ratio of the velocity of light in a vacuum to that in the material measured at 23 °C for the sodium D line at wavelength 589,3 nm.

4 Apparatus and material

4.1 Abbe refractometer or any other refractometer that can be shown to give the same results ; the accuracy shall be 0,001.

4.2 Source of white light.

4.3 Contacting liquid

Saturated aqueous solution of zinc chloride made slightly acid.

5 Specimens

The specimen cut from the sample shall be of such a size as will fit on the face of the fixed half of the refractometer prisms.

For the Abbe refractometer the dimensions are as follows :

- 6 mm wide,
- 12 mm long,
- 3 mm thick.