



SLOVENSKI STANDARD
SIST EN 3866:2014

01-februar-2014

Aeronavtika - Nekovinski materiali - Prosojnost stekla - Preskusne metode - Ugotavljanje valovitosti izvrtin in površin

Aerospace series - Non-metallic materials - Glass transparencies - Test methods - Determination of ream and surface ripple

Luft- und Raumfahrt - Nichtmetallische Werkstoffe - Transparente Glaswerkstoffe - Prüfverfahren - Bestimmung der Riffel- und Oberflächenwelligkeit

Série aérospatiale - Matériaux non-métalliques - Transparents en verre - Méthodes d'essais - Détermination des ondes et des coups de rouleaux

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Ta slovenski standard je istoveten z: EN 3866:2013

ICS:

49.025.99 Drugi materiali Other materials

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EUROPEAN STANDARD

EN 3866

NORME EUROPÉENNE

EUROPÄISCHE NORM

January 2013

ICS 49.025.99

English Version

**Aerospace series - Non-metallic materials - Glass transparencies
- Test methods - Determination of ream and surface ripple**

This European Standard was approved by CEN on 17 November 2012.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

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Foreword

This document (EN 3866:2013) 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 2013, and conflicting national standards shall be withdrawn at the latest by July 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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Introduction

This standard is part of the series of EN non-metallic material standards for aerospace applications. The general organisation of this series is described in EN 4385. This standard is a level 3 document as defined in EN 4385. It has been prepared in accordance with EN 4386.

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1 Scope

This European Standard defines a qualitative method for the determination of the ream and surface ripple in glass transparencies for aircraft applications.

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 4385, *Aerospace series — Non-metallic materials — General organisation of standardisation — Links between types of standards* ¹⁾

EN 4386, *Aerospace series — Non-metallic materials — Rules for the drafting and presentation of test method standards* ¹⁾

3 Terms, definitions, symbols and abbreviations

Not applicable.

4 Health, safety and environment

This European Standard does not necessarily include all health, safety and environment requirements, associated with its use.

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Persons using this European Standard shall be familiar with normal laboratory / test house practices.

It is the responsibility of the user to establish satisfactory health, safety and environment practices and to ensure conformity with any European, National or local laws / regulations.

5 Principle/technique

The shadow of the glass transparency, by a homogeneous high intensity light may be viewed on a matt screen, when illuminated as in 6.1. The distortions and the optical defects are revealed on the screen by the shadow.

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

EN 3866:2013 (E)**6 Resources****6.1 Apparatus/facilities**

A dark room.

A high intensity point light source with an output of 200 W to 250 W, able to create a homogeneous field.

A matt white screen to receive the shadow of the glass transparency.

6.2 Materials/reagents

Not applicable.

6.3 Qualification of personnel

Not applicable.

7 Test samples/test pieces

Not applicable – test to be done on actual plies.

8 Test procedure

See Figure 1.

The glass transparency under test shall be held parallel to a matt white screen at a distance of 1 000 mm.

The high intensity light shall set at a distance of 3 000 mm from the glass transparency, then shone through the transparency to produce shadows on the screen. The transparency may be angled slightly away from the screen in order to determine whether a fault exists.

9 Expression of results

This is a qualitative method only - see scope.

10 Measurement uncertainties

The precision of this test method is not known because inter-laboratory data are not available.

11 Designation

Not applicable.

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