Aerospace series - Burning behaviour of non metallic materials under the influence of radiating heat and flames - Determination of smoke density

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NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 2825:2011 sisaldab Euroopa standardi EN 2825:2011 ingliskeelset teksti.	This Estonian standard EVS-EN 2825:2011 consists of the English text of the European standard EN 2825:2011.
Standard on kinnitatud Eesti Standardikeskuse 31.05.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.05.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
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English Version

Aerospace series - Burning behaviour of non metallic materials under the influence of radiating heat and flames - Determination of smoke density

Série aérospatiale - Comportement au feu des matériaux non métalliques sous l'action de chaleur rayonnante et de flammes - Détermination de la densité de fumée

Luft- und Raumfahrt - Brandverhalten nichtmetallischer Werkstoffe unter Einwirkung von strahlender Wärme und Flammen - Bestimmung der Rauchdichte

This European Standard was approved by CEN on 17 December 2010.

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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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Foreword

This document (EN 2825:2011) 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of an identical text or by endorsement, at the latest by October 2011, and conflicting national standards shall be withdrawn at the latest by October 2011.

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.

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1 Scope

This European Standard defines a test method for determination of the smoke density due to pyrolitic decomposition of solid materials and composite materials of up to 25 mm in thickness under the influence of radiant heat only or with simultaneous flame application.

The test results enable a comparison of the smoke production of different materials or material configurations under the conditions specified in this standard.

NOTE 1 The smoke gas density is determined according to the specific environmental and test conditions defined in EN 2824 and this standard. No studies have been made up to now to determine whether the results can be transferred to differing conditions, particularly to actual fire conditions.

NOTE 2 The burning behaviour - and consequently the smoke density - of aerospace materials are not only influenced by the type of material but also to a large extent by the configuration, the specific surface and mass, the combination with other materials, the means of joining as well as the processing technique.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 2824, *Aerospace series — Burning behaviour of non metallic materials under the influence of radiating heat and flames — Determination of smoke density and gas components in the smoke of materials — Test equipment apparatus and media* [1)]

EN ISO 13943:2008, *Fire safety — Vocabulary*

3 Short description of the test method

The specimens are vertically arranged in a closed test chamber according to EN 2824 and subjected to decomposition by radiant heat only or with flame application. The smoke density is measured by means of the reduction of light transmission as smoke accumulates and expressed in terms of specific optical density which is derived from a geometric factor and the measured light obscuration.

4 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 13943 apply.

1) 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).