Aerospace series - Flammability of non metallic materials - Part 2: Small burner test, horizontal - Determination of the horizontal flame propagation

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NATIONAL FOREWORD

See Eesti standard EVS-EN 3844-2:2011 sisaldab Euroopa standardi EN 3844-2:2011 ingliskeelset teksti.	This Estonian standard EVS-EN 3844-2:2011 consists of the English text of the European standard EN 3844-2:2011.
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.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 02.11.2011.	Date of Availability of the European standard is 02.11.2011.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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Foreword

This document (EN 3844-2:2011) 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of an identical text or by endorsement, at the latest by May 2012, and conflicting national standards shall be withdrawn at the latest by May 2012.

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 specifies the test method for the determination of the horizontal flame propagation of non metallic materials when subjected to a small flame.

This test method is also used for testing non metallic materials which have to meet the test criteria for the horizontal Bunsen burner test.

It is used for evaluation of non metallic materials or constructions used in the interiors of aerospace vehicles but may be used in other applications as specified in applicable procurement and regulatory documents.

This standard should be used to measure and describe the properties of non metallic materials, products or assemblies in response to heat and flame under controlled laboratory conditions and should not be used to describe or appraise the fire hazard or fire risk of materials, products, or assemblies under actual fire conditions. However results of this test may be used as elements of a fire risk assessment which takes into account all of the factors which are pertinent to an assessment of the fire hazard of a particular end use.

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.

ASTM-D 5025, *A laboratory burner used for small-scale burning test on plastic materials* 1)

3 Terms and definitions

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

3.1
flame spread rate
distance travelled by a flame front during its propagation, per unit time, under specified test conditions

NOTE In this test, it is the speed with which a flame front moves across a test specimen mounted horizontally.

3.2
time of flame application
length of time the burner flame is applied to the specimen

3.2
burn length
distance in millimetres from the original specimen edge to the farthest evidence of damage of the test specimen due to that area's combustion, including areas of partial consumption, charring, or embrittlement, but not including areas sooted, stained, warped or discoloured, nor areas where material has shrunk or melted away from the heat

4 Principle of method

Testing is performed on a specimen that is held horizontal. A burner flame, having defined parameters, is applied to the specimen for a defined period of time. The after flame time and the burn length is measured. The occurrence of drips and their after flame time is measured.

1) Published by: ASTM National (US) American Society for Testing and Materials http://www.astm.org/.