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## Cellular plastics — Determination of horizontal burning characteristics of small specimens subjected to a small flame

*Plastiques alvéolaires — Détermination des caractéristiques de combustion de petites éprouvettes en position horizontale, soumises à une petite flamme*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see [www.iso.org/directives](http://www.iso.org/directives)).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see [www.iso.org/patents](http://www.iso.org/patents)).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see [www.iso.org/iso/foreword.html](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 4, *Burning behaviour*.

This fourth edition cancels and replaces the third edition (ISO 9772:2012), which has been technically revised.

The main changes compared to the previous edition are as follows:

- better definitions of positions of specimen on wire mesh and of burner have been provided;
- requirements for materials that show different damaged lengths on top and bottom faces of the specimen have been specified;
- dimensions of cotton indicator have been reduced;
- reference to ASTM E2016 has been added.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at [www.iso.org/members.html](http://www.iso.org/members.html).

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## Introduction

Cellular plastics are widely used in products for packaging, building, housing, industry and transport, in various applications. The burning behaviour of cellular plastics is a concern for the fire safety of these products. This document gives a method for the determination of the burning behaviour of cellular plastics using a small flame source.

The burning behaviour of cellular plastics is influenced by the test specimen orientation (vertical or horizontal). This method of test evaluates specimens which are oriented horizontally.

The method described is also intended as a pre-selection test for materials used for components of devices and appliances. The final acceptance of the material is dependent upon its use in complete equipment that conforms with the standards applicable to such equipment.

It should be noted that the test results obtained by the test specified in this document alone cannot represent all the aspects of the fire hazard of cellular plastics in end-use conditions.