



SLOVENSKI STANDARD SIST EN ISO 13927:2023

01-november-2023

Polimerni materiali - Preprost preskus za ugotavljanje sproščene toplote z uporabo koničnega radiacijskega grelnika in detektorja iz termoelektrične baterije (ISO 13927:2023)

Plastics - Simple heat release test using a conical radiant heater and a thermopile detector (ISO 13927:2023)

Kunststoffe - Einfache Prüfung der Wärmefreisetzung unter Anwendung eines kegelförmigen Strahlungsheizkörpers und einer Thermosäule als Detektor (ISO 13927:2023)

Plastiques - Essai simple pour la détermination du débit calorifique au moyen d'un radiateur conique et d'une sonde à thermopile (ISO 13927:2023)

Ta slovenski standard je istoveten z: EN ISO 13927:2023

ICS:

83.080.01	Polimerni materiali na splošno	Plastics in general
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SIST EN ISO 13927:2023

en,fr,de

EUROPEAN STANDARD

EN ISO 13927

NORME EUROPÉENNE

EUROPÄISCHE NORM

September 2023

ICS 83.080.01

Supersedes EN ISO 13927:2015

English Version

Plastics - Simple heat release test using a conical radiant heater and a thermopile detector (ISO 13927:2023)

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This European Standard was approved by CEN on 21 April 2023.

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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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EUROPEAN COMMITTEE FOR STANDARDIZATION
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European foreword

This document (EN ISO 13927:2023) has been prepared by Technical Committee ISO/TC 61 "Plastics" in collaboration with Technical Committee CEN/TC 249 "Plastics" the secretariat of which is held by SIS.

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of an identical text or by endorsement, at the latest by March 2024, and conflicting national standards shall be withdrawn at the latest by March 2024.

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

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Endorsement notice

The text of ISO 13927:2023 has been approved by CEN as EN ISO 13927:2023 without any modification.

INTERNATIONAL
STANDARD

ISO
13927

Third edition
2023-08

**Plastics — Simple heat release test
using a conical radiant heater and a
thermopile detector**

*Plastiques — Essai simple pour la détermination du débit calorifique
au moyen d'un radiateur conique et d'une sonde à thermopile*

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Reference number
ISO 13927:2023(E)

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Published in Switzerland

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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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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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.

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 4, *Burning behaviour*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 249, *Plastics*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 13927:2015), which has been technically revised.

The main changes are as follows:

- the normative references have been updated to the latest editions (see [Clause 2](#));
- use of mass flow rate of methane gas corresponding to the net heat of combustion for calibration of the thermopile has been added in [Clause 9](#);
- a new [Annex D](#) giving an example of thermopile calibration has been added and subsequent annex has been renamed as [Annex E](#).

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.

ISO 13927:2023(E)**Introduction**

Fire is a complex phenomenon; its behaviour and effects depend upon a number of interrelated factors. The behaviour of materials and products depends upon the characteristics of the fire, the method of use of the materials, and the environment in which they are exposed (see also ISO 13943).

A test, such as the one specified in this document, deals only with a simple representation of a particular aspect of the potential fire situation, typified by a radiant heat source, and it cannot alone provide any direct guidance on the behaviour or safety in fire (see ISO/TS 3814). A test of this type can, however, be used for comparative purposes or to ensure the existence of a certain quality of performance (in this case, heat release from a composite material or an assembly) considered to have a bearing on fire performance generally. It would be wrong to attach any other meaning to performance in this test. The attention of all users of this test is drawn to the warning that immediately precedes [Clause 10](#).

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