
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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Foreword

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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](#).

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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](#).