
**Plastics — Evaluation of the action of
microorganisms**

Plastiques — Évaluation de l'action des micro-organismes

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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 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).

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For an explanation on 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 the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 6, *Ageing, chemical and environmental resistance*.

This third edition cancels and replaces the second edition (ISO 846:1997), which has been technically revised. The main changes compared to the previous edition are as follows.

- The size of the test specimens has been defined as $(50 \text{ mm} \pm 1 \text{ mm}) \times (50 \text{ mm} \pm 1 \text{ mm})$. A fixed size allows the determination of any edge effects associated with the area 5 mm from the outer edge (see new [Annex C](#)). In this way, the evaluation of growth on the test specimens is harmonized.
- New [Annexes B](#) and [C](#) have been added and the old annexes have been renumbered.
- The former [Annex C](#) has been updated and renumbered as [Annex D](#).
- [Test A only](#):

Stainless steel coupons acting as negative control specimens have been introduced to provide a reference for where fungal growth occurs in the Petri dish, even though no nutrients have been added to the test design.

The test design does not use an agar-medium any more to provide the source of moisture to allow $95 \% \pm 5 \%$ relative humidity to be achieved. Instead the test specimens are stored in closed containers that include a water reservoir to provide a relative humidity $95 \% \pm 5 \%$ around the test specimens during incubation;

A grid has been introduced for use during the evaluation of the area of growth observed on the surface of the test specimens. The use of the grid provides and objective mechanisms for assessing growth and is explained in the new [Annex C](#).

- Test B has been deleted.
- Positive control specimens (test specimens that allow fungal growth) have been introduced to allow the determination of basic fungistatic effects of samples that contain biocides.