
**Plastics — Determination of loss of
plasticizers — Activated carbon method**

*Matières plastiques — Détermination des pertes en plastifiants —
Méthode au charbon actif*



PDF disclaimer

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

This document is a preview generated by EVS

© ISO 2005

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 176 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 6, *Ageing, chemical and environmental resistance*.

This second edition cancels and replaces the first edition (ISO 176:1976), Clause 8 of which is now Clause 9 and a new Clause 8 has been added.

This document is a preview generated by EVS

Plastics — Determination of loss of plasticizers — Activated carbon method

1 Scope

This International Standard specifies two empirical methods for the quantitative determination of the loss of mass from a plastic material under defined conditions of time and temperature, in the presence of activated carbon.

These methods are used, in particular, for the quantitative determination of the loss on heating of plasticizers from plasticized plastic materials in which case it is generally assumed that no significant amounts of other volatile materials are present.

These are empirical test methods, suitable only for a rather rapid comparison of the losses of plasticizers or, in general, of volatile compounds, from different plastics.

They may also be employed for the comparison of different types of plasticizers; in this case, standard compounds should be prepared, on the basis of a well characterized resin, with known ratios of resin to plasticizer.

NOTE These comparisons are possible only if the test specimens are of the same thickness. If it can be assumed that, after reconditioning, the moisture content of the exposed specimens is equal to that obtaining after the original conditioning, the effect of moisture may be ignored.

Two methods are specified:

- **Method A:** The test specimens are in direct contact with the carbon; this method is particularly useful for materials that have to be tested at relatively low temperatures because they flow at higher temperatures.
- **Method B:** The test specimens are placed in wire cages that prevent direct contact between the test specimens and the carbon.

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.

ISO 291, *Plastics — Standard atmospheres for conditioning and testing*

ISO 293, *Plastics — Compression moulding of test specimens of thermoplastic materials*

3 Apparatus and materials

3.1 Analytical balance, accurate to 0,000 1 g.

3.2 Micrometer, accurate to 0,01 mm.