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Fifth edition  
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## **Paints, varnishes and plastics — Determination of non-volatile-matter content**

*Peintures, vernis et plastiques — Détermination de la matière non  
volatile*



Reference number  
ISO 3251:2019(E)

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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)).

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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](http://www.iso.org/iso/foreword.html).

This document was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Subcommittee SC 9, *General test methods for paints and varnishes*.

This fifth edition cancels and replaces the fourth edition (ISO 3251:2008), which has been technically revised. The main changes compared to the previous edition are as follows:

- a general reference to ISO 4618 on terms and definitions has been added to [Clause 3](#);
- the example of the desiccant in [4.5](#) has been changed to silica gel orange because the use of cobalt chloride as indicator is no longer allowed;
- the precision data of polymer dispersions has been corrected: the figures given in the 2008 edition were  $\pm$  data which now have been converted correctly into percentages;
- the common test parameters for coating powders (powder resins) have been deleted from [Table A.1](#) because ISO 8130-7 can be used instead;
- common test parameters for waterborne coating materials have been added to [Table A.1](#).

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

For the method to be usable for unplasticized polymer dispersions and rubber lattices, the non-volatile residue (which consists essentially of the polymeric material and of small quantities of auxiliaries such as emulsifiers, protective colloids, stabilizers, solvents added as film-forming agents and – especially for rubber latex concentrate – preserving agents) has to be chemically stable under the test conditions. For plasticized samples, the residue, by definition, normally includes the plasticizer.

ISO 3233 (all parts) specifies test methods for determining the volume of non-volatile matter in paints, varnishes and related products.