

TECHNICAL REPORT

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Paints and varnishes — Determination of the ability of liquid paints to sustain combustion

*Peintures et vernis — Détermination de l'aptitude des peintures liquides
à entretenir la combustion*



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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 main task of technical committees is to prepare International Standards, but in exceptional circumstances a technical committee may propose the publication of a Technical Report of one of the following types:

- type 1, when the required support cannot be obtained for the publication of an International Standard, despite repeated efforts;
- type 2, when the subject is still under technical development or where for any other reason there is the future but not immediate possibility of an agreement on an International Standard;
- type 3, when a technical committee has collected data of a different kind from that which is normally published as an International Standard ("state of the art", for example).

Technical Reports of types 1 and 2 are subject to review within three years of publication, to decide whether they can be transformed into International Standards. Technical Reports of type 3 do not necessarily have to be reviewed until the data they provide are considered to be no longer valid or useful.

ISO/TR 9038, which is a Technical Report of type 2, was prepared by Technical Committee ISO/TC 35, *Paints and varnishes*, Sub-Committee SC 9, *General test methods for paints and varnishes*.

The reasons which led to the decision to publish this document as a type 2 Technical Report are given in the introduction.

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Introduction

0.1 Historical context

Sub-committee ISO/TC 35/SC 9, *General test methods for paints and varnishes*, has been studying a method for the determination of combustibility since a new work item was approved in 1982 (TC 35 N 764), with Egypt, Germany, the Netherlands, Poland, Sweden and the UK agreeing to participate in the work. Progress was made, the draft proposal receiving substantial support in October 1983 and the draft International Standard being issued for ballot in August 1985.

At the meeting of ISO/TC 35/SC 9 in Hull, Canada, in May 1985, the leader of the French delegation, who had not indicated their active participation in the work, spoke on behalf of the European paint manufacturers association CEPE (liaison members of ISO/TC 35/SC 9). He referred to work carried out in 1984 by FIPEC (Fédération des Industries des Peintures, Vernis et Couleurs) and a meeting of CEPE which questioned the accuracy of the test as presented. He also pointed out that EEC regulations would need the test to be conducted at 55 °C rather than at any temperature as proposed in the ISO document.

It was agreed that, as the ISO/DIS was about to be circulated, a copy of the extensive minutes of the discussion and the FIPEC findings should be circulated and members of ISO/TC 35 asked to consider these when making their response to ISO/DIS 9038. Considerable experimental work was carried out by the members prior to registering their votes but, whilst other deficiencies were noted and alternatives proposed, no support for the changes proposed by FIPEC was put forward.

A second DIS was prepared and circulated for ballot in 1987 with a result which confirmed the decision to publish the document, with a few minor changes contained in comments accompanying approval votes, as an International Standard.

It was proposed to resolve these comments at a meeting of ISO/TC 35/SC 9 in September 1987, which was done; but at the same meeting the German delegation presented evidence which at the time, and without time to verify it, seemed credible. ISO/TC 35/SC 9 therefore resolved to propose the publication of a type 2 Technical Report whilst further work was carried out to give the method wider exposure.

0.2 Technical background

This type 2 Technical Report is related to a series of International Standards dealing with the sampling and testing of paints, varnishes and related products.

A product with a flashpoint within a given range may continue to burn after initial ignition, while a similar product, although it has a similar flashpoint, may not. This Technical Report provides a method for discriminating between those products that, after ignition under controlled

laboratory conditions and subsequent removal of the flame, sustain combustion and those which do not.

This Technical Report therefore describes a procedure by which a paint or similar product that has been classified as “flammable” as a result of the determination of its flashpoint by one of the recognized methods can be identified as being incapable of sustaining combustion because of its formulation. Products to which this applies include, for example:

- a) some paints containing chlorinated hydrocarbons;
- b) some water-dilutable paints.