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Plastics — Determination of the brittleness temperature by impact

Plastiques — Détermination de la température de fragilité au choc



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Contents

1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Principle.....	2
5	Apparatus	2
6	Test specimens	3
7	Conditioning.....	5
8	Procedure	5
9	Expression of results	6
9.1	Graphical method	6
9.2	Calculation method	6
10	Test report	7

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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 International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 974 was prepared by Technical Committee ISO/TC 61, *Plastics*, Subcommittee SC 2, *Mechanical properties*.

This second edition cancels and replaces the first edition (ISO 974:1980), which has been technically revised.

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Introduction

Plastics are used in many applications requiring low-temperature flexing with or without impact. Polymer brittleness is affected by any orientation produced during fabrication, by thermal history and by the application of stress to the material, especially the rate of applied stress as in impact. Brittleness temperature data may be used to predict the behaviour of plastic materials at low temperature only in applications in which the conditions of deformation are similar. The brittleness temperature test was originally developed to measure the temperature at which a polymer ceases to be flexible and becomes "glasslike".