

INTERNATIONAL STANDARD

ISO
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Second edition
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Plastics — Plasticized compounds of homopolymers and copolymers of vinyl chloride (PVC-P) —

Part 2:

**Preparation of test specimens and determination of
properties**

*Plastiques — Compositions plastifiées d'homopolymères et de copolymères de
chlorure de vinyle (PVC-P) —*

Partie 2: Préparation des éprouvettes et détermination des caractéristiques



Reference number
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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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 2898-2 was prepared by Technical Committee ISO/TC 61, *Plastics*.

This second edition cancels and replaces the first edition (ISO 2898-2 : 1980), of which it constitutes a technical and editorial revision. The main technical change concerns the choice of properties, and therefore test methods, for characterizing a plasticized PVC compound. In addition, more recent test methods and sizes of test specimen have been used.

ISO 2898 consists of the following parts, under the general title *Plastics — Plasticized compounds of homopolymers and copolymers of vinyl chloride (PVC-P)*:

- *Part 1: Designation*
- *Part 2: Preparation of test specimens and determination of properties*

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Plastics — Plasticized compounds of homopolymers and copolymers of vinyl chloride (PVC-P) —

Part 2 :

Preparation of test specimens and determination of properties

1 Scope

This part of ISO 2898-2 specifies the equipment and method to be used to prepare standard test specimens from plasticized compounds of homopolymers and copolymers of vinyl chloride (VC). It also gives detailed instructions on the standard test methods and conditions to be used for determining the properties indicated in ISO 2898-1 for the purposes of designation, and other relevant properties. The properties and test conditions may be used in addition to identify a material and to control its quality in a reproducible manner.

The properties of a moulded article depend, among other things, on the composition of the moulding material, on the shape and state of anisotropy of the moulding, and on the methods of test used. Anisotropy is a function of the moulding conditions, including the temperature, pressure, injection rate, etc. In addition, any post-treatment of the moulded article, such as a conditioning or annealing, will influence the values of the properties.

The values of the properties determined in accordance with this part of ISO 2898 are not applicable to specimens of other dimensions or to specimens prepared by a different procedure. Also, colorants and other additives may affect the property values.

The use of this part of ISO 2898 may involve hazardous materials, operations and equipment. This part of ISO 2898 does not purport to address all of the safety problems associated with its use. It is the responsibility of the user to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 2898. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 2898 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 176 : 1976, *Plastics — Determination of loss of plasticizers — Activated carbon method*.

ISO 291 : 1977, *Plastics — Standard atmospheres for conditioning and testing*.

ISO 458-2 : 1985, *Plastics — Determination of stiffness in torsion of flexible materials — Part 2: Application to plasticized compounds of homopolymers and copolymers of vinyl chloride*.

ISO/R 527 : 1966, *Plastics — Determination of tensile properties*.

ISO 868 : 1985, *Plastics and ebonite — Determination of indentation hardness by means of a durometer (Shore hardness)*.

ISO 1183 : 1987, *Plastics — Methods for determining the density and relative density of non-cellular plastics*.

ISO 2898-1 : 1986, *Plastics — Plasticized compounds of homopolymers and copolymers of vinyl chloride (PVC-P) — Part 1: Designation*.

ISO 3451-5 : 1989, *Plastics — Determination of ash — Part 5: Poly(vinyl chloride)*.

IEC 93 : 1980, *Methods of test for volume resistivity and surface resistivity of solid electrical insulating materials*.

3 Preparation of test specimens

3.1 Principle

Preparation of a rough sheet from the material to be tested, using a heated two-roll mill. Subsequent compression moulding of the preliminary sheet so produced into sheets of uniform thickness. Preparation of test specimens from these moulded sheets by machining or die-cutting.

3.2 Preparation of preliminary sheets

3.2.1 Apparatus

Two-roll mixing mill, capable of operating satisfactorily at temperatures up to and including 180 °C.