INTERNATIONAL STANDARD

ISO 4823

Third edition
2000-12-15

Dentistry — Elastomeric impression materials

Art dentaire — Produits pour empreintes, à base d'élastomères

Reference number
ISO 4823:2000(E)

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.

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.ch
Web www.iso.ch

Printed in Switzerland

Contents

Page

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 4823 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 2, *Prosthodontic materials*.

This third edition cancels and replaces the second edition (ISO 4823:1992), which has been revised to reflect the following technical differences:

— the 60 s limit on **Mixing time** (5.4, second edition) has been eliminated;

— the **Consistency test** requirement for **Type 1** and **Type 2** impression materials has been relaxed (see Table 1, both editions);

— a more realistic approach for making pass/fail determinations (8.4);

— apparatus and procedures specified for the **Working-time test** (9.3) and the **Elastic recovery tests** (9.7) provide for more objective test results than those specified in 7.4 and 7.6 of the second edition;

— Figure 2 illustrates how the instrument depicted in Figure 4 of the second edition can be modified to make it suitable for use in the **Consistency test** as well as for the **Strain-in-compression test**;

— Figure 15 illustrates how the **split mould** shown in Figure 5 of the second edition can be modified to provide for more uniformly shaped specimens.

Annex A of this International Standard is for information only.

Dentistry — Elastomeric impression materials

1 Scope

This International Standard specifies requirements and tests for evaluating elastomeric dental impression materials.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 1942, *Dental vocabulary.*

ISO 6873, *Dental gypsum products.*

3 Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 1942 and the following apply.

3.1
consistency
degree of firmness with which particles of a material, prepared for use, cohere so as to allow the material to flow, or resist flow, as required to achieve the purpose for which it is intended

3.2
elastic recovery test
compression set (deprecated)
permanent deformation (deprecated)
recovery from deformation (deprecated)
⟨elastic impression materials⟩ method of determining whether the materials possess the elastic properties required to recover adequately after deformation occurring when the materials, used for forming impressions, are removed from the mouth

3.3
extrusion mixing
method by which two or more material components are extruded from their separate immediate containers through a special mixing tip, from which the components emerge as a homogeneous mixture

3.4
hand mixing
method of mixing the components of a material by means of manual kneading or spatulation