

This is a preview of "ISO 15912:2006". [Click here to purchase the full version from the ANSI store.](#)

First edition
2006-10-01

Dentistry — Casting investments and refractory die materials

Art dentaire — Revêtements et matériaux pour modèles réfractaires



Reference number
ISO 15912:2006(E)

© ISO 2006

This is a preview of "ISO 15912:2006". [Click here to purchase the full version from the ANSI store.](#)

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 2006

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

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.org
Web www.iso.org

Published in Switzerland

This is a preview of "ISO 15912:2006". [Click here to purchase the full version from the ANSI store.](#)

Contents

	Page
Foreword.....	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions.....	1
4 Classification.....	2
5 Requirements	2
5.1 General.....	2
5.2 Material consistency.....	2
5.3 Fluidity	2
5.4 Initial setting time	3
5.5 Compressive strength	3
5.6 Linear thermal dimensional change	3
5.7 Setting expansion	3
6 Sampling, test conditions and mixing	3
6.1 Sampling.....	3
6.2 Test conditions	3
6.3 Mixing.....	3
7 Test methods.....	4
7.1 Material consistency.....	4
7.2 Fluidity	4
7.3 Initial setting time	5
7.4 Compressive strength	7
7.5 Linear thermal dimensional change	9
8 Manufacturer's instructions	12
8.1 General.....	12
8.2 Information for use	12
8.3 Physical properties.....	13
8.4 Safety instructions.....	13
9 Marking	13
9.1 Powder container.....	13
9.2 Liquid container	14
10 Packaging	14
10.1 Powder	14
10.2 Liquid	14
Bibliography	15

This is a preview of "ISO 15912:2006". [Click here to purchase the full version from the ANSI store.](#)

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 2.

The main task of technical committees is to prepare International Standards. 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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 15912 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 2, *Prosthetic materials*.

This first edition of ISO 15912 contains the requirements and test methods for dental casting, brazing and refractory investment and die materials. It cancels and replaces ISO 7490:2000, ISO 9694:1996, ISO 11244:1999, ISO 11245:1999 and ISO 11246:1996.

In general, this International Standard contains the same or similar requirements to those contained in the five International Standards it replaces. An exception is the requirement for setting expansion, which has been removed due to the continuing inability to find a suitably reliable and reproducible test method for all binder chemistries.

This is a preview of "ISO 15912:2006". [Click here to purchase the full version from the ANSI store.](#)

Introduction

Dental investment and other refractory materials are used for a variety of applications within the dental laboratory. Historically, standards were developed on the basis of the chemistry of the binding system used or specific type of application, resulting in five separate International Standards. This single International Standard gives the requirements and test methods for dental casting, brazing and refractory investments and refractory die materials, regardless of the nature of the binding system or the particular application.

This International Standard classifies investments into types according to their intended use and classes according to the recommended burn-out procedure.

A specific quantitative requirement for setting expansion is not included in this International Standard. However, if the setting expansion of a gypsum-bonded investment is measured, use of the procedure contained in ISO 6873:1998 should be considered. This procedure is not recommended for phosphate-bonded products.