

This is a preview of "ISO 10477:2004". [Click here to purchase the full version from the ANSI store.](#)

STANDARD 10477

Second edition
2004-10-01

Dentistry — Polymer-based crown and bridge materials

Art dentaire — Produits à base de polymères pour couronnes et ponts



Reference number
ISO 10477:2004(E)

© ISO 2004

This is a preview of "ISO 10477:2004". [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 2004

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 10477:2004". [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 Biocompatibility	2
5.2 Sensitivity to ambient light, Type 2, Class 2 polymer-based crown and bridge materials	2
5.3 Depth of cure, Type 2, Class 2 polymer-based crown and bridge materials	3
5.4 Surface finish	3
5.5 Flexural strength	3
5.6 Bond strength	4
5.7 Water sorption	4
5.8 Solubility	4
5.9 Shade consistency	4
5.10 Colour stability	4
6 Sampling	4
6.1 For all tests	4
6.2 For test of shade consistency	4
6.3 For test of colour stability	5
7 Test methods	5
7.1 General	5
7.2 Visual inspection	5
7.3 Sensitivity to ambient light, Type 2, Class 2 polymer-based crown and bridge materials	5
7.4 Depth of cure, Type 2, Class 2 polymer-based crown and bridge materials	7
7.5 Surface finish	7
7.6 Flexural strength	8
7.7 Bond strength	11
7.8 Water sorption and solubility	13
7.9 Shade consistency and colour stability	16
8 Packaging and labelling	17
8.2 Labelling	18
9 Manufacturer's instructions and information for the user	19
9.1 Instructions for use	19
9.2 Shade guide	20
Bibliography	21

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 10477 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 2, *Prosthetic materials*.

This second edition cancels and replaces the first edition (ISO 10477:1992), which has been technically revised. It also incorporates the amendment ISO 10477:1992/Amd.1:1998.

The following changes were made:

- a) addition of a bonding test;
- b) addition of a table for the test protocol and two tables of results.

This is a preview of "ISO 10477:2004". [Click here to purchase the full version from the ANSI store.](#)

Introduction

Specific qualitative and quantitative requirements for freedom from biological hazards are not included in this International Standard. Assessment of possible biological hazards is covered in ISO 10993-1 and ISO 7405.