
**Implants for surgery —
Hydroxyapatite —**

**Part 4:
Determination of coating adhesion
strength**

Implants chirurgicaux — Hydroxyapatite —

Partie 4: Détermination de la résistance à l'adhésion du revêtement

*iTech Standards
(<https://standards.itech.ai>)
Document Preview*

ISO 13779-4:2018

<https://standards.itech.ai/catalog/standards/iso/6a9e1dea-b395-42ec-b2f6-864c85a2b2ba/iso-13779-4-2018>



iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

ISO 13779-4:2018

<https://standards.iteh.ai/catalog/standards/iso/6a9e1dea-b395-42ec-b2f6-864c85a2b2ba/iso-13779-4-2018>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative reference	1
3 Terms and definitions	1
4 Determination of hydroxyapatite coating adhesion strength	1
4.1 Principle	1
4.2 Apparatus	2
4.3 Test method	3
4.3.1 Number of test samples	3
4.3.2 Preparation of coated coupon	3
4.3.3 Procedure	3
4.4 Calculation of coating adhesion strength	4
5 Test report for tensile testing of hydroxyapatite coatings	4
Bibliography	6

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

ISO 13779-4:2018

<https://standards.iteh.ai/catalog/standards/iso/6a9e1dea-b395-42ec-b2f6-864c85a2b2ba/iso-13779-4-2018>

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 150, *Implants for surgery*, Subcommittee SC 1, *Materials*.

This second edition cancels and replaces the first edition (ISO 13779-4:2002), which has been technically revised.

A list of all parts in the ISO 13779 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Hydroxyapatite coatings are designed to promote adhesion to bone and to be colonized by bone. As a consequence, the mechanical strains in the coating and mechanical properties of the coating after implantation will change with time during the osteointegration of the coating. The aim of initial measurements of the adhesion properties of the coating, in dry conditions, detailed in this document is to guarantee minimum mechanical properties of the coating during implantation. Those minimal properties defined in ISO 13779-2 are for the coating to keep its morphology (thickness, roughness, etc.) during the implantation and to avoid chipping and spalling of the coating during implantation.

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ISO 13779-4:2018](https://standards.iteh.ai/catalog/standards/iso/6a9e1dea-b395-42ec-b2f6-864c85a2b2ba/iso-13779-4-2018)

<https://standards.iteh.ai/catalog/standards/iso/6a9e1dea-b395-42ec-b2f6-864c85a2b2ba/iso-13779-4-2018>

