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Dentistry — Rotational adaptability test between implant body and implant abutment in dental implant systems

Médecine bucco-dentaire — Essai d'évaluation de la liberté rotationnelle entre le corps d'implant et le pilier implantaire des systèmes d'implants dentaires

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Foreword

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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).

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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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 8, *Dental implants,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 55, *Dentistry,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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

The rotational adaptation between an implant body and an implant abutment is an important physical property as it affects the quality of fit between them and therefore resistance to loosening. In addition, correct adaptation between these components can influence the rotational positioning of the final prostheses, the accuracy of the occlusion which it provides, and its physical behaviour under load. The test is carried out when evaluating the physical properties of dental implant systems but there is currently no International Standard available, resulting in variance in the method and the requirements of adaptations.

Dentistry — Rotational adaptability test between implant body and implant abutment in dental implant systems

1 Scope

This document specifies a test method to evaluate the rotational adaptability between an implant body and an implant abutment in a dental implant system.

This document is applicable to the implant systems which do not have a friction-fit between implant body and implant abutment but incorporate only an anti-rotational feature between these components. Analog or replica components cannot be used to evaluate the adaptability of dental implant systems.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1942, *Dentistry — Vocabulary*

ISO 16443, *Dentistry — Vocabulary for dental implants systems and related procedure*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 1942, ISO 16443 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
rotational angle between implant body and implant abutment
angle on a plane at right angles to the central long axis of the implant body described by the rotation between fully clockwise and fully counter-clockwise of a seated implant abutment without the use of an abutment screw, cement or friction and rotated clockwise or counter-clockwise

3.2
rotational adaptability between an implant body and an implant abutment
adequate fit between an implant body and an implant abutment in terms of the *rotational angle between implant body and implant abutment* (3.1)

3.3
dental implant system
integrated system of components which consists of implant bodies and implant abutments

