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Dentistry - Physical properties of powered toothbrushes (ISO 20127:2025)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

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**Dentistry - Physical properties of powered toothbrushes
(ISO 20127:2025)**

Médecine bucco-dentaire - Caractéristiques physiques
des brosses à dents électriques (ISO 20127:2025)

Zahnheilkunde - Physikalische Eigenschaften von
elektrischen Zahnbürsten (ISO 20127:2025)

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EN ISO 20127:2025 (E)

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European foreword

This document (EN ISO 20127:2025) has been prepared by Technical Committee ISO/TC 106 "Dentistry" in collaboration with Technical Committee CEN/TC 55 "Dentistry" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2025, and conflicting national standards shall be withdrawn at the latest by November 2025.

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Endorsement notice

The text of ISO 20127:2025 has been approved by CEN as EN ISO 20127:2025 without any modification.



International Standard

ISO 20127

Dentistry — Physical properties of powered toothbrushes

*Médecine bucco-dentaire — Caractéristiques physiques des
brosses à dents électriques*

**Third edition
2025-05**

ISO 20127:2025(en)



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ISO 20127:2025(en)**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).

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This document was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 7, *Oral care products*, 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).

This third edition cancels and replaces the second edition (ISO 20127:2020), which has been technically revised.

The main changes are as follows:

- requirements and procedure for determining filament end-rounding were added.

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.

ISO 20127:2025(en)**Introduction**

Powered toothbrushes are used for the removal of dental plaque and oral debris in order to facilitate oral hygiene.

Dentistry — Physical properties of powered toothbrushes

1 Scope

This document specifies requirements and test methods for the physical properties of powered toothbrushes in order to promote the safety of these products for their intended use.

There are different technologies of powered toothbrushes. Common features of those powered toothbrushes to which this document applies are:

- a battery;
- a motor;
- a mechanical or magnetic drive system;
- a moving brush head with tufted filaments.

Powered toothbrushes can have a moving brush head with different motions (e.g. oscillating-rotating, side-by-side), frequencies and velocities.

These types of electric toothbrushes are tested for safety in use by means of appropriate test procedures or clinical studies

The requirements listed in this document apply to all types of powered toothbrushes. However, there is a possibility that some requirements are not applicable for all types. For example, brush head plate retention can only be applied if the brush has a head portion that can detach from the brush shaft. In addition, for the filaments end-rounding requirements, this document does not apply to filament types that are very thin (less than 0,1 mm outside diameter) or have no sharp edges (e.g. tapered, feathered, with split tips or spherical cap) or non-synthetic filaments, where applying the end-rounding process is inappropriate or impossible.

This document is not applicable to other types of powered oral hygiene devices (such as powered interdental brushes) or manual toothbrushes.

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 3696:1987, *Water for analytical laboratory use — Specification and test methods*

IEC 60068-2-75, *Environmental testing — Part 2-75: Tests — Test Eh: Hammer tests*

IEC 60335-1, *Household and similar electrical appliances — Safety — Part 1: General requirements*

IEC 60335-2-52, *Household and similar electrical appliances — Safety — Part 2-52: Particular requirements for oral hygiene appliances*

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