

INTERNATIONAL STANDARD

**ISO
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Second edition
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Dental cartridge syringes

Seringues à usage dentaire pour cartouches



Reference number
ISO 9997:1999(E)

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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 3.

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 International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 9997 was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 4, *Dental instruments*.

This second edition cancels and replaces the first edition (ISO 9997:1990), which has been technically revised as follows:

- the dental cartridge syringes are now classified into non-aspirating and aspirating types with a subclassification according to aspiration of force produced by drawing the plunger or by the deflection of a diaphragm;
- improved description of plunger rod test;
- corrosion test in accordance with ISO 13402;
- marking now requires lot number.

Introduction

This International Standard specifies requirements for dental cartridge syringes with ISO metric thread sizes only. However, attention is drawn to the existence of a variety of syringes with Imperial thread sizes (see annex A).

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Dental cartridge syringes

1 Scope

This International Standard specifies requirements and test methods for dental cartridge syringes which are reusable dental syringes of the aspirating, non-aspirating and self-aspirating types using cartridges with dental local anaesthetics.

This International Standard is not applicable to cartridge syringes having a mechanical-advantage action for creating high pressure.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 261, *ISO general purpose metric screw threads — General plan.*

ISO 965-1, *ISO general purpose metric screw threads — Tolerances — Part 1: Principles and basic data.*

ISO 1942-3, *Dental vocabulary — Part 3: Dental instruments.*

ISO 11499, *Dental cartridges for local anaesthetics.*

ISO 13402:1995, *Surgical and dental hand instruments — Determination of resistance against autoclaving, corrosion and thermal exposure.*

3 Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 1942-3, ISO 11499 and the following apply.

3.1

aspiration

process by which blood or body fluid is drawn into an anaesthetic cartridge

3.2

unit pack

pack containing a dental cartridge syringe

3.3

cartridge

container for local anaesthetics