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International

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Assistive products for toileting, bathing and showering — Requirements and test methods

Produits d'assistance pour les toilettes, le bain et la douche — Exigences et méthodes d'essai

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This document was prepared by Technical Committee ISO/TC 173, *Assistive products*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 293, *Assistive products and accessibility,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 17966:2016), which has been technically revised.

The main changes are as follows:

— new terms and definitions were added, and a few definitions updated (Clause 3);

— new apparatus was added and a few updated (4.8);

— requirements for flammability were updated, and requirements for other soft parts, polymeric parts and wiring were added (5.2);

— requirements for infection and microbiological contamination were updated, and requirements, test methods, performance criteria and marking requirements for machine washable assistive products were added (5.4);

— requirements for electromagnetic compatibility were removed from this document, reference to requirements in IEC 60601-1:2005 was added instead (Clause 7);

— reference to electrical standards was adjusted, and requirements for electrical systems, safe positioning, single fault safety, hold to run activation, emergency stopping functions and continuity of power supply were therefore removed from this document (8.1);

— charge level indication for battery powered assistive products was modified for better understanding (8.2);

— requirement for ingress of particulate matter was specified (8.4.2);

— requirement and test of pendant controls was added (8.5);

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- means to prevent falling out (e.g. side rails) were added (Clause 12);
- Table 6 for calculating forces was updated, formula to find F1 was modified for several products and drawing examples were given for explanation (16.2);
- designed lifetime t_{DL} was changed to expected lifetime t_{EL} in the formula for calculating number of test cycles, expected lifetime was changed from a minimum of 3 years to 5 years, Table 7 and Table 8 were updated (16.3);
- modification of test methods and new test methods added for static strength (16.4) and durability (16.5);
- modification of test methods for stability (Clause 17);
- Clause 19 for assistive products for children has been modified;
- ergonomic requirement for surface of buttons from previous version were removed (Clause 21);
- ergonomic requirement for hand-operated controls were adjusted to a height of 870 mm to 1 100 mm above the surface of the floor (Clause 21);
- test method for movement over a threshold and door frame were modified so it is no longer possible to use a test dummy, and a reference to suitable loading pads was added (22.4.3, 22.4.4);
- requirement for handles for pushing and pulling or both was changed to be positioned between 800 mm to be operated at a height of 1 200 mm above the surface of the floor (22.5.2);
- starting force in the requirements for moving forces was changed to maximum 170 N (22.6.1);
- modification of test methods for fixed assistive products (Clause 23);
- modification of test methods for portable assistive products (Clause 24);
- Annex E on lithium batteries was 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.

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This document specifies requirements and test methods that are relevant to assistive products for toileting, bathing and showering.

Clauses 4 to 21 and Clauses 25 to 27 contain general requirements for all types of products included in the scope.

Clauses 22 to 24 contain specific requirements for mobile, fixed and portable assistive products. These clauses contain additional requirements to the requirement in Clauses 25 to 27.

An assistive product is deemed to conform with this document when it fulfils the general requirements as well as the additional requirements in the clauses relevant to the type of product (mobile, fixed or portable).

In addition to the requirements in this document, Annex B gives general recommendations.

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