



SLOVENSKI STANDARD
oSIST prEN 13071-1:2018
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**Nepremični zabojniki za odpadke do 5000 l, ki se dvigujejo zgoraj in praznijo
spodaj - 1. del: Splošne zahteve**

Stationary waste containers up to 5 000 l, top lifted and bottom emptied - Part 1: General requirements

Stationäre Abfallsammelbehälter bis 5 000 l, mit Behälteraufnahme an der Oberseite und Bodenentleerung - Teil 1: Allgemeine Anforderungen

Conteneurs fixes à déchets de capacité inférieure ou égale à 5000 l, levés par le haut et vidés par le bas - Partie 1 : Exigences générales

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13.030.40	Naprave in oprema za odstranjevanje in obdelavo odpadkov	Installations and equipment for waste disposal and treatment
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English Version

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Behälteraufnahme an der Oberseite und
Bodentleerung - Teil 1: Allgemeine Anforderungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 183.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (prEN 13071-1:2018) has been prepared by Technical Committee CEN/TC 183 “Waste management”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document will supersede EN 13071-1:2008.

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prEN 13071-1:2018 (E)**Introduction**

According to the European health and safety requirements, work equipment shall be designed and constructed so that it can be operated without putting persons at risk. The manufacturer must consider the intended conditions of use, but also any reasonably foreseeable misuse.

For that purpose the manufacturer must carry out a risk analysis in order to determine the hazards which the operators are exposed to. The equipment must then be designed and constructed taking into account the results of this assessment, by an iterative process of risk assessment and risk reduction.

As specified in the guidance document «Classification of equipment used for lifting loads with lifting machinery » (Machinery Working Group - January 2012), containers used for collecting and lifting bulk material are not covered by Directive 2006/42/CE.

However, a large number of the hazards which the operators using such equipment and the persons present in the vicinity of lifting/handling operations are exposed to are the same as those resulting from the use of lifting appliances proper.

These are the reasons why CEN/TC 183 decided to include into this standard requirements intended to support the corresponding essential health and safety requirements of Directive 2006/42, in particular those related to lifting operations (part 4 of Annex I).

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1 Scope

This European Standard specifies requirements of stationary containers, top lifted and bottom emptied, used for collection of solid non-hazardous wastes, with capacity up to 5 000 l.

This European Standard specifies general characteristics of such containers and their accessories, test methods and safety requirements as well as recommendations for installation, maintenance and cleaning operations.

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.

EN 10346, *Continuously hot-dip coated steel flat products for cold forming - Technical delivery conditions*

EN 22248, *Packaging - Complete, filled transport packages - Vertical impact test by dropping (ISO 2248)*

EN ISO 105-B02, *Textiles - Tests for colour fastness - Part B02: Colour fastness to artificial light: Xenon arc fading lamp test (ISO 105-B02)*

EN ISO 1461, *Hot dip galvanized coatings on fabricated iron and steel articles - Specifications and test methods (ISO 1461)*

EN ISO 2244, *Packaging - Complete, filled transport packages and unit loads - Horizontal impact tests (ISO 2244)*

EN ISO 4892-2, *Plastics - Methods of exposure to laboratory light sources - Part 2: Xenon-arc lamps (ISO 4892-2)* [https://standards.iteh.ai/catalog/standards/sist/218bd30c-7489-4c1c-ac33-](https://standards.iteh.ai/catalog/standards/sist/218bd30c-7489-4c1c-ac33-305a84c9af31/sist-en-13071-1-2018)

ISO 48, *Rubber, vulcanized or thermoplastic — Determination of hardness (hardness between 10 IRHD and 100 IRHD)*

ISO 2081, *Metallic coatings — Electroplated coatings of zinc on iron or steel*

prEN 13071-1:2018 (E)**3 Terms and definitions**

For the purposes of this document, the following terms and definitions apply.

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

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1**container**

top lifted, bottom emptied mobile receptacle, designated to collect/receive waste

3.2**dead mass**

mass of the empty container including all attached components lifted together

Note to entry: Dead mass is expressed in kilograms

3.3**emptying device**

part of the structure of the container to allow it to be emptied

3.4**emptying hatch(es)**

opening part(s), if present, at the bottom of the container that enable(s) it to be emptied

3.5**lifting connection**

structure fitted to the container to allow lifting and positioning

3.6**handling container system**

lifting accessory consisting of a mechanism to connect the loader crane and the designated waste container (and its opening mechanism)

3.7**locking system**

structure to maintain the emptying device closed

3.8**nominal load**

load mass calculated from the container's usable volume and the waste density

3.9**nominal volume**

volume declared by the manufacturer

3.10**test load**

specific load defined and used in each test

3.11**total permissible mass**

nominal load plus the dead mass of the container including all attached components lifted together

3.12**usable volume**

volume of the inside of the container beneath the bottom of the filling aperture

3.13**filling aperture height**

vertical distance between ground level and the bottom of the filling aperture(s)

3.14**total height**

vertical distance between the bottom of the container when opened and the top of the lifting connection

3.15**container base dimensions**

horizontal dimensions of the bottom of the container including all attached components lifted together

3.16**roof**

top surface of the container or housing

3.17**flexible container**

top lifted, bottom emptied mobile flexible receptacle, designated to collect/receive waste

3.18**mechatronics**

mechanical and electronic device integrated on a waste container. See Part ...

4 General requirements**4.1 Recommendations**

The installation site of a container shall be compatible with the collection operations. It means it shall respect the following constraints:

- The maximum distance between the vertical axis of the lifting connection and the vertical axis of the lifting crane shall not be more than 5000 mm;
- The access of the collection vehicle shall be valid and safe at any time;
- The environment of the container, as well as the distance between the container and the parking place of the collection vehicle shall be free of any obstacle, to allow safe collection operations: trees, urban furniture, electric wires, parking places;
- A minimum yearly control shall be conducted by relevant party on all lifting and emptying accessories: emptying device, emptying hatch(es), lifting connection, handling container system, locking system. For this purpose, the container shall be designed to allow safe and easy access to these parts, and the supplier shall provide its recommendations for these operations;
- Internal and external cleaning operations shall be recommended, at least once a year;
- The customer shall verify that the collecting service uses the right dedicated equipment (crane, lifting accessory, interface / lifting connections, ...).

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4.2 Design

The container shall be constructed so that when it is loaded or unloaded with a nominal load, it fits on a designated lifting device. It shall be safely locked to the lifting accessory during the lifting operation.

The container shall not include any element that will result in collected materials being retained thereby compromising complete emptying.

The container shall be constructed such that it can be easily dismantled at its end of life. An “end-of-life notice” shall be provided, materials shall be marked in accordance with ISO standards.

4.3 Filling apertures

Dimensions of filling apertures:

Filling aperture's height over 900 mm: round filling apertures having a diameter more than 200 mm or whatever other form ones with at least one dimension more than 150 mm shall be equipped with a self-closing device (drum, lid, cover flap, ...)

Filling aperture's height under 900 mm: round filling apertures having a diameter more than 200 mm or whatever other form ones with at least one dimension more than 150 mm shall be equipped with a self-closing device (drum, lid, cover flap, ...) and with a safety device that will prevent any accidental falling into the container.

Large filling apertures (over 100 l or tri dimensional ones, and bi dimensional ones with at least one dimension more than 500mm) shall be reserved to authorized and informed people and be equipped with a locking device.

The volume of filling apertures when tri dimensional is calculated by simulating the quantity of water (in litres) it can contain.

Filling aperture shall in all cases remain fully safe for the user when filling the container and ensure it cannot cause injury by its movement(s).

Filling aperture height shall be 1 700 mm maximum. Where fitted, the filling aperture height for disabled persons shall be 1 200 mm maximum.

Filling apertures for the deposit of glass shall be designed in such a way as to avoid fragments or any other debris coming out of the container.

4.4 Total height

Total height shall be 6 000 mm maximum.

4.5 External surfaces/edges

For all surfaces potentially in contact with users, sharp edges shall be avoided. Rounded edges with a radius more than 1,4 mm are not considered as sharp edges.

4.6 Lifting connection position

The lifting connection shall be positioned so that, when empty and with the emptying hatch(es) closed, the container shall hang vertically.

The lifting connection shall be positioned so that it can be lifted from any direction

4.7 Total permissible mass

The total permissible mass shall not exceed 2 500 kg.

4.8 Total usable volume

The total usable volume shall be obtained by calculation, and shall be within $\pm 10\%$ of the nominal volume.

4.9 Waste spillage

The container shall be designed so that at all times, no waste shall spill.

5 Test conditions

5.1 General

All tests shall be carried out on new containers.

5.2 Temperature requirements

The tests shall be carried out at the following temperatures:

- $T_1 = (23 \pm 5) \text{ }^\circ\text{C}$;
- $T_2 = (-18 + 0/-2) \text{ }^\circ\text{C}$.

The minimum duration of conditioning before testing shall be 12 hours. If the test is carried out outside the conditioned room and the duration of the test is more than 5 min, then for each 5 minute period of testing the container shall be reconditioned for at least 15 min before continuing the test.

For special purposes a temperature lower than $-18 \text{ }^\circ\text{C}$ or higher than $+23 \text{ }^\circ\text{C}$ can be agreed with the customer; in this case it shall be indicated on the test report.

5.3 Waste density

For the calculation of test loads, the density value will be $\rho = 0,4$ in kg/dm^3 .

In case of wastes with higher density, the maximum usable volume of the container shall be determined by the total permissible mass as defined in 4.7.

6 Test methods

6.1 General

Where a family of containers is produced from identical components, the testing of the components on the smaller containers can be omitted, providing the larger container's components have passed the tests.

This assertion is not valid for flexible containers, which will have to be tested one by one.