



# SLOVENSKI STANDARD

## SIST EN 13071:2004

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Selective waste collection containers - Above-ground mechanically-lifted containers with capacities from 80 l to 5000 l for selective collection of waste

Behälter für die getrennte Sammlung von Abfall - Im Freien aufzustellende, mechanisch aufnehmbare Behälter mit einem Volumen von 80 l bis 5000 l für die getrennte Sammlung von Abfall

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Conteneurs de collecte sélective des déchets - Conteneurs de surface mécaniquement levés de capacités comprises entre 80 l et 5000 l pour collecte sélective des déchets

Ta slovenski standard je istoveten z: EN 13071:2002

### ICS:

13.030.40	Naprave in oprema za odstranjevanje in obdelavo odpadkov	Installations and equipment for waste disposal and treatment
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SIST EN 13071:2004

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English version

Selective waste collection containers - Above-ground  
mechanically-lifted containers with capacities from 80 l to 5000 l  
for selective collection of waste

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de surface mécaniquement levés de capacités comprises  
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Behälter für die getrennte Sammlung von Abfall - Im Freien  
aufzustellende, mechanisch aufnehmbare Behälter mit  
einem Volumen von 80 l bis 5000 l für die getrennte  
Sammlung von Abfall

This European Standard was approved by CEN on 22 December 2001.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## Foreword

This European Standard has been prepared by CEN/TC 183 "Waste Management", 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 August 2002, and conflicting national standards shall be withdrawn at the latest by August 2002.

The annexes A and B are normative.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

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## 1 Scope

This European Standard specifies the requirements for above-ground containers, mechanically lifted and emptied, used for the selective collection of solid non-hazardous waste, with capacities from 80 l to 5 000 l.

The standard specifies the general characteristics of such containers and their accessories, the test methods and the safety requirements.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

EN 840-1, *Mobile waste containers – Part 1: Containers with 2 wheels with a capacity from 80 l to 390 l for comb lifting devices – Dimensions and design.*

EN 840-2, *Mobile waste containers – Part 2: Containers with 4 wheels with a capacity from 500 l to 1200 l with flat lid(s), for trunnion and/or comb lifting devices – Dimensions and design.*

EN 840-3, *Mobile waste containers – Part 3: Containers with 4 wheels with a capacity from 770 l to 1300 l with dome lid(s), for trunnion and/or comb lifting devices – Dimensions and design.*

EN 840-4, *Mobile waste containers – Part 4: Containers with 4 wheels with a capacity from 750 l to 1700 l with flat lid(s), for wide trunnion or BG- and/or wide comb lifting devices – Dimensions and design.*

EN 840-5, *Mobile waste containers – Part 5: Performance requirements and test methods.*

EN 840-6, *Mobile waste containers – Part 6: Safety and health requirements.*

EN 12574-1, *Stationary waste containers – Part 1: Containers with a capacity from 1 700 l to 5 000 l with flat or dome lid(s), with trunnion, double trunnion or pocket lifting devices – Dimensions and design.*

EN 12574-2, *Stationary waste containers – Part 2: Performance requirements and test methods.*

EN 12574-3, *Stationary waste containers – Part 3: Safety and health requirements.*

EN 22244, *Packaging – Complete filled transport packages – Horizontal impact tests (horizontal or inclined plane test/pendulum test) (ISO 2244:1985).*

EN 22248, *Packaging – Complete filled transport packages – Vertical impact test by dropping (ISO 2248:1985).*

EN ISO 877, *Plastics – Methods of exposure to direct weathering, to weathering using glass-filtered daylight, and to intensified weathering by daylight using Fresnel mirrors (ISO 877:1994).*

EN ISO 3744:1995, *Acoustics – Determination of sound power levels of noise sources using sound pressure – Engineering method in an essentially free field over a reflecting plane (ISO 3744:1994).*

EN ISO 4892-2, *Plastics – Methods of exposure to laboratory light sources – Part 2: Xenon-arc sources (ISO 4892-2:1994).*

ISO 9227, *Corrosion tests in artificial atmospheres – Salt spray tests.*

### 3 Terms and definitions

For the purposes of this standard, the following terms and definitions apply:

#### 3.1

##### **type A container**

container fitted with a bottom emptying system

#### 3.2

##### **type B container**

container discharged by the top

#### 3.3

##### **dead mass**

mass of the empty container given in kilograms

#### 3.4

##### **emptying mechanism**

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

#### 3.5

##### **emptying hatch**

opening parts at the bottom of the container which enable it to be emptied

#### 3.6

##### **ground area**

projection of the entire container onto the ground

#### 3.7

##### **lifting mechanism**

device/structure fitted to the container to allow lifting and placing

#### 3.8

##### **locking system**

device to maintain the emptying mechanism closed

#### 3.9

##### **nominal load**

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

#### 3.10

##### **nominal volume**

volume declared by the manufacturer

#### 3.11

##### **test load**

nominal load multiplied by a safety factor for testing

#### 3.12

##### **loading height**

vertical distance between the base of the container and the bottom of the filling aperture

#### 3.13

##### **total permissible mass**

nominal load plus the dead mass of the container

#### 3.14

##### **usable volume**

volume of the container beneath the bottom of the filling aperture



## 4 General requirements

### 4.1 General requirements for Type A containers

#### 4.1.1 Design

The container shall be capable of being immobilised by device or by design (see 6.1.1 and 6.2.2).

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

The container shall be designed in order to prevent noise emissions which shall be measured according to the test in 6.3.3 (for glass only).

The 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.

#### 4.1.2 Loading height

Loading height shall be in the range between 1,10 m and 1,70 m.

#### 4.1.3 External surfaces / Edges

Sharp edges shall be avoided in all cases. Rounded edges with a radius more than 1,4 mm are not considered as sharp edges.

### 4.2 General requirements for Type B containers

Type B container shall comply with the relevant parts of EN 840, Parts 1 to 6 and EN 12574 (stationary containers) taking into account the waste densities as defined in 5.2 for the calculation of test loads.

The container shall be designed in order to prevent noise emissions which shall be measured according to the test in 6.3.3 (for glass only).

## 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:

—  $T_1 = (23 \pm 5) ^\circ\text{C}$

—  $T_2 = (-18 + 0/-2) ^\circ\text{C}$ .

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  $-18 ^\circ\text{C}$  or higher than  $+23 ^\circ\text{C}$  can be agreed; in this case it shall be indicated in the test report.

### 5.3 Waste densities

For the calculation of test loads (see 6.2.1 and 6.3.2), the density values will be taken between the four following values:

- $\rho = 0,1$  in  $\text{Kg/dm}^3$  (e.g. for plastics, plastic bottles, flasks);
- $\rho = 0,3$  in  $\text{Kg/dm}^3$  (e.g. for glass, paper, tins, metals);
- $\rho = 0,4$  in  $\text{Kg/dm}^3$  (e.g. for wastes from vegetables/garden);
- $\rho = 0,8$  in  $\text{Kg/dm}^3$  (e.g. for wet wastes from kitchen).

## 6 Test procedures for Type A containers

### 6.1 Test procedures on empty containers

#### 6.1.1 Stability test procedures

Aim: Check the static stability of the empty container on a  $10^\circ$  slope and check the efficiency of the immobilisation device.

Apparatus:

- a slope surface of sufficient dimension to accommodate the whole base of the container. So that the container does not slide before tipping over, the surface shall be covered with a neoprene plaque of hardness  $60 \text{ IRHD}^1) \pm 5 \text{ IRHD}$  and density  $1,35 \pm 0,05$ ;  
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- a lifting mechanism.

Temperature:  $T_1$

Method: The container is placed on its base on the sloping surface, facing the steepest direction (if in doubt, carry out the test in several positions), lift the side opposite the pivoting point in order to obtain the predetermined angle. This action should be realised at an angular speed less than  $1^\circ/\text{s}$ .

Acceptance criteria: The container shall not tip over before an angle of  $10^\circ$  is obtained.

#### 6.1.2 Resistance to interior impacts (only for containers for glass)

Aim: To check that the container is not damaged when glass objects are thrown inside, thus making it unusable for its designated function or dangerous to the public.

Apparatus (see Figure 1):

- steel balls of mass  $2 \pm 0,1$  kg (diameter 80 mm max.);
- a tube for guiding the balls into the inside of the container. The inner diameter of the tube measures between 85 mm and 90 mm and allows a 500 mm guidance length for the ball.

Temperature:

- general rule:  $T_1$

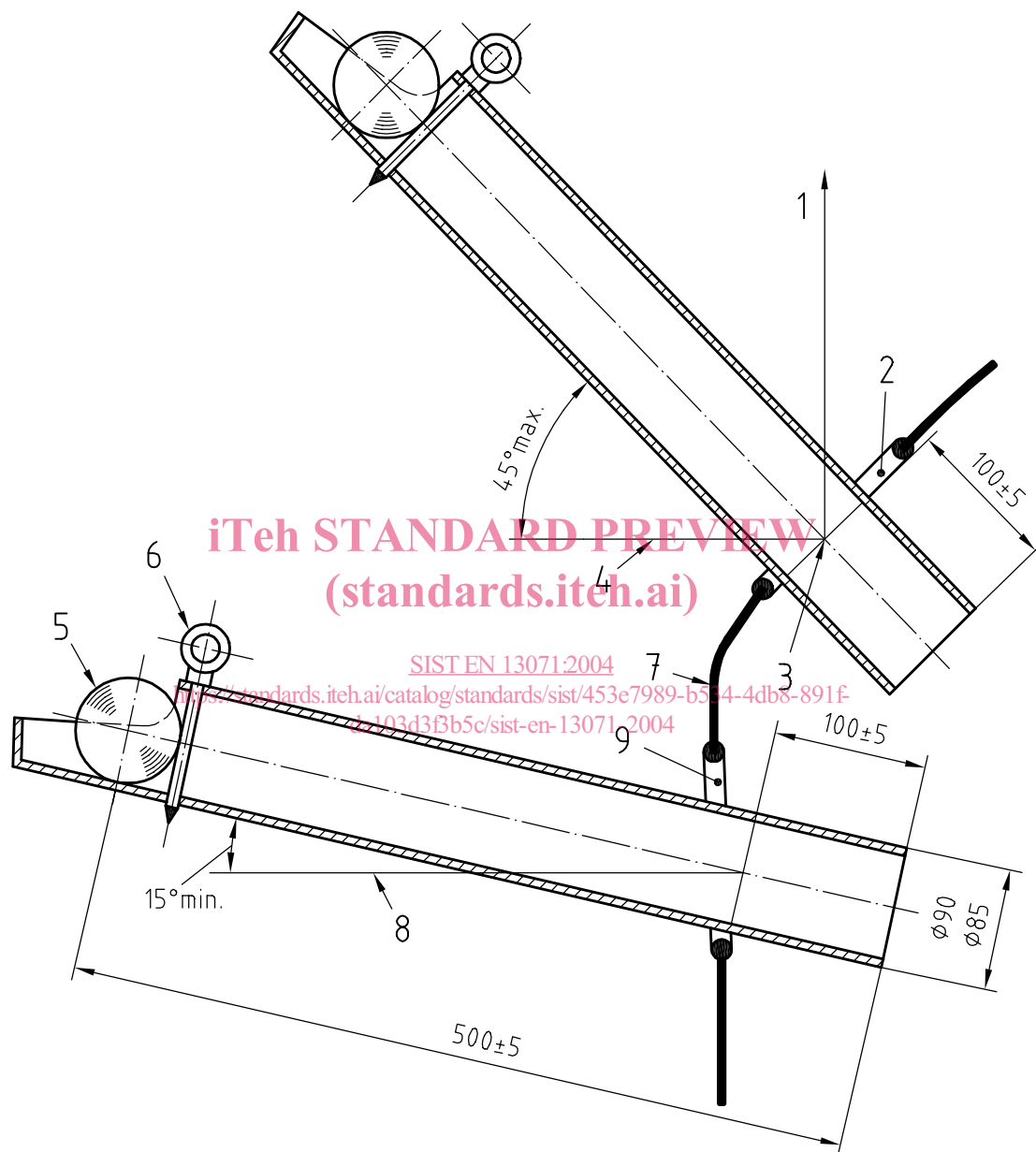
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<sup>1)</sup> International Rubber Hardness Degree (ISO 48).

— for materials sensitive to low temperatures:  $T_2$ .

Method (see Figures 1 and 2):

— place the end of the tube successively in each filling aperture only  $100 \text{ mm} \pm 5 \text{ mm}$  into the inside of the container. The tube rests by means of its own weight on the lowest point of the filling aperture;



#### Key

- 1 Vertical axis
- 2 Inclined filling aperture
- 3 Centre of the guiding tube
- 4 Horizontal axis
- 5 Ball, diameter max. 80 mm
- 6 Releasing pin
- 7 Container wall
- 8 Horizontal plane
- 9 Vertical filling aperture

Figure 1 — Description of the guiding tube and position 1 according to the slope of the filling aperture