



SLOVENSKI STANDARD

oSIST prEN 840-1:2018

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Premični zabojniki za odpadke in za recikliranje - 1. del: Zabojniki na dveh kolesih s prostornino do 400 l za iztresalnike z glavnikom - Mere in oblika

Mobile waste and recycling containers - Part 1: Containers with 2 wheels with a capacity up to 400 l for comb lifting devices - Dimensions and design

Fahrbare Abfall- und Wertstoffbehälter - Teil 1: Behälter mit 2 Rädern und einem Nennvolumen bis 400 l für Kammschüttungen - Maße und Formgebung

Conteneurs roulants à déchets et de recyclage - Partie 1 : Conteneurs à 2 roues de capacité inférieure ou égale à 400 l pour lève-conteneurs à peigne - Dimensions et conception

Ta slovenski standard je istoveten z: prEN 840-1

ICS:

13.030.40	Naprave in oprema za odstranjevanje in obdelavo odpadkov	Installations and equipment for waste disposal and treatment
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EUROPEAN STANDARD
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DRAFT
prEN 840-1

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ICS 13.030.40

Will supersede EN 840-1:2012

English Version

Mobile waste and recycling containers - Part 1: Containers with 2 wheels with a capacity up to 400 l for comb lifting devices - Dimensions and design

Conteneurs roulants à déchets et de recyclage - Partie 1 : Conteneurs à 2 roues de capacité inférieure ou égale à 400 l pour lève-conteneurs à peigne - Dimensions et conception

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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.

This draft European Standard was established by CEN 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 CEN-CENELEC Management Centre has the same status as the official versions.

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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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SIST EN 840-1:2020

<https://standards.iteh.ai/catalog/standards/sist/88fc7ef5-7d42-48bc-adba-b741737c2fdc/sist-en-840-1-2020>

European foreword

This document (prEN 840-1:2018) 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 840-1:2012.

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SIST EN 840-1:2020

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prEN 840-1:2018 (E)

1 Scope

This document specifies dimensions and design requirements of mobile waste and recycling containers with 2 wheels, with capacity up to 400 l to be used by comb lifting devices.

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.

prEN 840-5:2018, *Mobile waste and recycling containers — Part 5: Performance requirements and test methods*

prEN 840-6:2018, *Mobile waste and recycling containers — Part 6: Safety and health requirements*

prEN 1501-5:2018, *Refuse collection vehicles — General requirements and safety requirements — Part 5: Lifting devices for refuse collection vehicles*

EN ISO 11469, *Plastics - Generic identification and marking of plastics products (ISO 11469)*

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>

Note 1 to entry: Terms for components of mobile waste and recycling containers and lifting devices in three languages are given in Annex A.

3.1 mobile waste and recycling container

appropriately designed container fitted with wheels intended to temporarily store waste

3.2 lifting device

structure which picks-up, tilts and empties containers

3.3 comb lifting device

lifting device in which the picking-up system consists of a row of teeth and a locking system to retain the container during emptying

3.4 volume

total space inside the container when the lid is closed

Note 1 to entry: See Table 1.

3.5**nominal volume
capacity**

volume stated by the manufacturer

Note 1 to entry: See Table 1 without tolerances.

Note 2 to entry: The English term “capacity” and the French term “capacité” are translated in the German version by the term “Nennvolumen”.

3.6**nominal load**

load mass of 0,4 kg/dm³ x nominal volume

Note 1 to entry: See clause 6.

3.7**total permissible mass**

mass of the container plus the nominal load

3.8**functional and safety dimensions**

essential dimensions which ensure the functionality and interchangeability of the container with the compatible lifting device and which are necessary for the operator's safety and health

4 Volumes

This standard identifies the two classes of containers:

- Class I - small size (nominal volume up to 200 l);
- Class II - large size (nominal volume between 200 l and 400 l).

Within the two above-mentioned classes of containers the volumes shown in Table 1 are identified.

Table 1 — Volumes

Volumen in l										
60 ⁺¹³ ₋₅	80 ⁺¹⁸ ₋₅	120 ⁺⁸ ₋₆	140 ⁺⁶ ₋₁₂	180 ⁺⁴⁰ ₋₁₀	190 ⁺²⁵ ₋₁₀	210 ⁺¹⁵ ₋₅	240 ⁺¹⁵ ₋₅	260 ⁺²⁵ ₋₅	340 ⁺⁴⁰ ₋₂₅	390 ± 20

For methods of measuring capacity, see prEN 840-5:2018.

The volumes shown in Table 1 correspond to mobile waste and recycling container's capacities at present used in Europe. Since there are some overlapping capacities due to the tolerances, client and manufacturer shall decide while ordering the capacity chosen.

Nominal volumes different from those referenced in Table 1 can be used by agreement between user and manufacturer. The tolerance of the volumes shall be ± 10 % maximum measured according to prEN 840-5:2018. Table 2 includes examples of the most frequent assignments of classes and volumes of the containers.

Table 2 — Classes

Examples of the most frequent assignments of classes and volumes							
Class I a	Class I b	Class I c	Class I d	Class II a	Class II b	Class II c	Class II d
e.g. 60l	e.g. 120l	e.g. 140l	e.g. 180l	e.g. 210l	e.g. 240l	e.g. 340l	e.g. 390l
80l	110l		190l	190l		260l	370l
90l				180l		360l	400l

5 Dimensions and design

5.1 The design of the containers need not correspond to the drawings given in Figure 1. The functional dimensions given in Tables 3 and 4 shall be respected. For compatibility in lifting devices, the container shall correspond to its dimensions within the selected class type (Table 3, Table 4).

5.2 The container shall be constructed so that when it is unloaded or loaded with a nominal load (see Clause 6), it fits on an approved compatible lifting device. It shall be automatically locked safely into the lifting device during the lifting operation. The frontal receiver shall correspond to one of the options given in Figure 2 (Form A or B) or to Annex B, Figure B.1 (Form C).

5.3 The lid(s) shall cover the opening of the container completely. It shall be opened easily by itself during the emptying cycle. It/they shall be made with at least 2 fixing points and have at least one means of opening.

5.4 Each wheel shall be capable of withstanding a static load of 100 kg.

5.5 All the surfaces of the container including design features shall be smooth and free of any foreign bodies or flaws.

5.6 The container shall be able to be immobilised by design.

6 Nominal mass

The container shall be constructed strongly enough to carry a mass of $0,4 \text{ kg/dm}^3 \times \text{nominal volume}$.

7 Safety and health requirements

The container shall meet the safety and health requirements according to prEN 840-6:2018.

8 Testing

The container shall fulfil the performance requirements and the tests of prEN 840-5:2018.

9 Marking

9.1 Each container complying with the requirements of this European Standard shall be durably and readably marked on the body in a visible part with:

- number of this European Standard (prEN 840-1:2018);
- nominal volume;
- manufacturer’s name or trademark;
- total permissible mass, in kilograms;
- year and month of manufacturing.

9.2 Plastic parts of containers, lids and wheels shall be marked in accordance with EN ISO 11469. The use of recycled materials is allowed, presuming that all requirements of this standard are complied with.

10 Designation

The container complying with the requirements of this European Standard shall be designated as follows:

	Container	EN 840-1	240	A	96
Description					
Standard number		SIST EN 840-1:2020 https://standards.iteh.ai/catalog/standards/sist/88fc7ef5-7d42-48bc-adba-b741737c2fdc/sist-en-840-1-2020			
Nominal volume, in litres					
Frontal receiver form: A = frontal receiver form A B = frontal receiver form B C = frontal receiver form C					
Nominal load, in kilograms					

Table 3 — Dimensions for containers – Class I (up to 200 l)

Dimensions in millimetres

Dimension N°	Class I a		Class I b	Class I c	Class I d	Remarks
	Type a	Type b				
1a	448 ± 5	480 ± 5	505 max.	505 max.	505 max.	Total width of the container
2a	448 ± 5	480 ± 5	480 ± 5	480 ± 5	480 ± 5	Width of the frontal receiver
3	530 max.	555 max.	555 max.	555 max.	755 max.	
4	1 005 max		1005 max.	1 100 max.	1 100 max.	Total height including handles on the lid
5a	860 min.; 970 max.		860 min.; 970 max.	860 min.; 1030 max.	860 min.; 1030 max.	
6	450 max.	490 max.	490 max.	490 max.	500 max.	
7	1 010 max.		1010 max.	1 155 max.	1 200 max.	
8	430 min.; 670 max.		430 min.; 670 max.	430 min.; 670 max.	560 min; 760 max	For 300 mm wheels, the maximum dimension is 70 mm more.
9a	410 max.	450 max.	450 max.	450 max.	465 max.	
10	320 ± 10	385 max	385 max.	385 max.	410 max.	
11a	200 ⁺¹ ₋₅		200 ⁺¹ ₋₅	200 ⁺¹ ₋₅	200 ⁺¹ ₋₅	Larger wheels accepted
12a	19 min.		19 min.	19 min.	19 min.	
13a	6 ⁺² _{-4,5}		6 ⁺² _{-4,5}	6 ⁺² _{-4,5}	6 ⁺² _{-4,5}	
15a	13 ⁺⁵ ₋₃		13 ⁺⁵ ₋₃	13 ⁺⁵ ₋₃	13 ⁺⁵ ₋₃	
16a	21 ⁺² ₋₂		21 ⁺² ₋₂	21 ⁺² ₋₂	21 ⁺² ₋₂	
17	-		-	-		This dimension is no longer used.
18a	26 ± 1		26 ± 1	26 ± 1	26 ± 1	
19a	58 max.		58 max.	58 max.	58 max.	

Dimension N°	Class I a		Class I b	Class I c	Class I d	Remarks
	Type a	Type b				
20	20 min.		20 min.	20 min.	20 min.	
21a	130 max.		130 max.	130 max.	130 max.	
22	15 max.		15 max.	15 max.	15 max.	
23	33^{+8}_0		33^{+8}_0	33^{+8}_0	33^{+8}_0	
26a	147 ± 8	180 ± 5	180 ± 5	180 ± 5	180 ± 5	Compulsory dimensions when ribs are fitted, max. ribs thickness 6 mm A middle rib is only allowed with class II a type a, class II b, class II c, class II d type b.
27	270° min.		270° min.	270° min.	270° min.	
28						The dimension No 28 has to correspond to Figure 3 and the lifting device. Definition in accordance with comb dimension, standard and identification character of prEN 1501-5:2018

^a Compulsory dimensions for functional and safety reasons. The other dimensions indicated are suggested recommended values.