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Enote kombiniranega prevoza 45'PW

Intermodal Transport Unit 45'PW

Intermodale Ladeeinheiten - 45 Fuß Paletten Breite

Unités de transport intermodal 45' PW

Ta slovenski standard je istoveten z: **prEN 17247**

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Intermodal Transport Unit 45'PW

Unités de transport intermodal 45' PW

Intermodale Ladeeinheiten - 45 Fuß Paletten Breite

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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 17247:2018) has been prepared by Technical Committee CEN/TC 119 “Intermodal Loading Units and Cargo Securing (ILUCS)”, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

Introduction

The following ITU type is used for specification purposes in this document:

Part 1	00 to 09
General purposes	
Specific purposes	
closed, vented/ventilated	10 to 19
open top	50 to 59
Part 2	
Thermal	30 to 49

NOTE Container types 90 to 99 are reserved for surface ITU: see ISO 8323.

1 Scope

1.1 This document provides the basic specifications and testing requirements for EN ITU of the totally enclosed general purpose types and certain specific purpose types (see Table 1) which are suitable for international and domestic exchange and for conveyance by road, rail, inland waterways and maritime transport, including interchange between these modes of transportation.

1.2 The container types covered by this part of this document are given in Table 1.

Table 1 — Container types

Code	Type designation	Type group code
G	General purpose container without ventilation	GP
V	General purpose container with ventilation	VH
U	Open-top Container	UT
B	Dry Bulk Cargo non pressurized, box type	BU
S	Named Cargo	SN
	Open side	

This document does not cover ventilation arrangements, either vented or ventilated.

1.3 The marking requirements for these ITU are given in EN 13044-2.

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.

ISO 830, *Freight containers - Vocabulary*

ISO 668:2013, *Series 1 freight containers - Classification, dimensions and ratings*

ISO 1161, *Series 1 freight containers - Corner and intermediate fittings - Specifications*

ISO 1496 (all parts), *Series 1 freight containers - Specification and testing*

ISO 17712, *Freight containers - Mechanical seals*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 830 and the following 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
Intermodal Transport Unit
ITU
container, swap body or semi-trailer/goods road motor vehicle suitable for intermodal transport

4 Dimensions and ratings

4.1 External dimensions

The overall external dimensions and tolerances of the ITU covered by this document shall be for 45' PW ITU:

— length:13,716 mm (tolerance (+0/-10) mm);

— maximum width: 2,550 mm (tolerance (+0/-50) mm);

— maximum height: 2,690 mm (tolerance (+0/-5) mm).

The overall external dimensions and tolerances of the ITU covered by this document shall be for 45' PW HC ITU:

— length:13,716 mm (tolerance +0/-10mm);

— maximum width: 2,550 mm (tolerance +0/-50mm);

— maximum height: 2,896 mm (tolerance +0/-5mm).

No part of the ITU shall project beyond these specified overall external dimensions.

4.2 Internal dimensions

Internal dimensions of ITU shall be as large as possible. For transportation of the European pallets, are required:

— a minimum length of 13,542 mm;

— minimum width of 2,440 mm;

— minimum height of 2,359 mm (2,655 m for HC ITU).

4.3 ITU Ratings

The values of the rating *R*, being the maximum gross mass of the ITU are 36.000 kg.

5 Design requirements

5.1 General

All ITU shall be capable of fulfilling the following requirements.

All ITU shall have standard square corner posts and corner castings.

The strength requirements for ITU are given in diagrammatic form in Annex A (these requirements are applicable to all ITU except where otherwise stated). They apply to ITU as complete units.

The strength requirements for corner fittings (see also 5.2) are given in ISO 1161.

The ITU shall be capable of withstanding the loads and loadings detailed in Clause 6.

As the effects of loads encountered under any dynamic operating condition should only approach, but not exceed, the effects of the corresponding test loads, it is implicit that the capabilities of ITU indicated in Annex A and demonstrated by the test described in Clause 6 shall not be exceeded in any mode of operation.

Any closure in a ITU which, if unsecured, could lead to a hazardous situation, shall be provided with an adequate securing system having external indication of the positive securement of that closure in the appropriate operating position.

In particular, doors should be capable of being securely fastened in the open or closed position.

Any removable roof or roof section shall be fitted with locking devices such that an observer at ground level can check (when the container is on a rail or highway carrying vehicle) that its roof is secured.

All closed ITU and all open ITU fitted with covers which were designed for them, shall be weatherproof as required by test No. 13 (see 6.14).

5.2 Corner fittings

All ITU shall be equipped with top and bottom corner fittings 45'PW and also have intermediate fittings at ISO forty foot position.

The upper faces of the top corner fittings shall protrude above the top of the container by a minimum of 6 mm[1] (see 5.3.4). The "top of the ITU" means the highest level of the cover of the ITU, for example the level of the top of a soft cover. However, if reinforced zones or doubler plates are provided to afford protection to the roof in the vicinity of the top corner fittings, such plates and their securements shall not protrude above the upper faces of the top corner fittings. These plates shall not extend more than 750 mm[1] from either end of the container or on either side of intermediate fittings but may extend the full width.

5.3 Base structure

5.3.1 All ITU shall be capable of being supported either by their bottom corner fittings only or intermediate corner fittings only.

5.3.2 All ITU shall also be capable of being supported only by load transfer areas in their base structure.

5.3.2.1 Consequently, this ITU shall have end transverse members and sufficient intermediate load transfer areas (or a flat underside) of sufficient strength to permit vertical load transfer to or from the longitudinal member of a carrying vehicle. Such longitudinal members are assumed to lie within the two 250 mm[1] wide zones defined by the broken lines in ISO 668:2013, Annex B.

5.3.2.2 The lower faces of the load transfer areas, including those of the end transverse members, shall be in one plane located:

$$12{,}5 \text{ mm } {}^{+5}_{-1{,}5} \text{ mm}$$

above the plane of the bottom faces of the lower corner fittings of the container. Apart from the bottom corner fittings and bottom side rails, no part of the ITU shall project below this plane.

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[1] 6 mm = ¼ in
750 mm = 29 ½ in
250 mm = 9-7/8" in

$12{,}5 \text{ mm}^{+5}_{-1{,}5}$ mm = 1 / 2 in$^{+3/16}_{-1/13}$ in

However, doubler plates may be provided in the vicinity of the bottom corner fittings to afford protection to the understructure.

Such plates shall not extend more than 550 mm from the outer end and not more than 470 mm from the side faces of the bottom corner fittings, and their lower faces shall be at least 5 mm above the lower faces of the bottom corner fittings of the ITU.

5.3.2.3 The transfer of load between the underside of the bottom side rails and carrying vehicles is not envisaged.

The transfer of load between side rails and handling equipment should only occur when provisions have been made in accordance with 5.8.1 and 5.8.2.

5.3.2.4 ITU having all their intermediate transverse members spaced at 1 000 mm apart or less (or having a flat underside) shall be deemed to comply with the requirements laid down in 5.3.2.1.

5.3.2.5 Requirements for ITU not having transverse members spaced 1 000 mm apart or less (and not having a flat underside) are given in ISO 668:2013, Annex B.

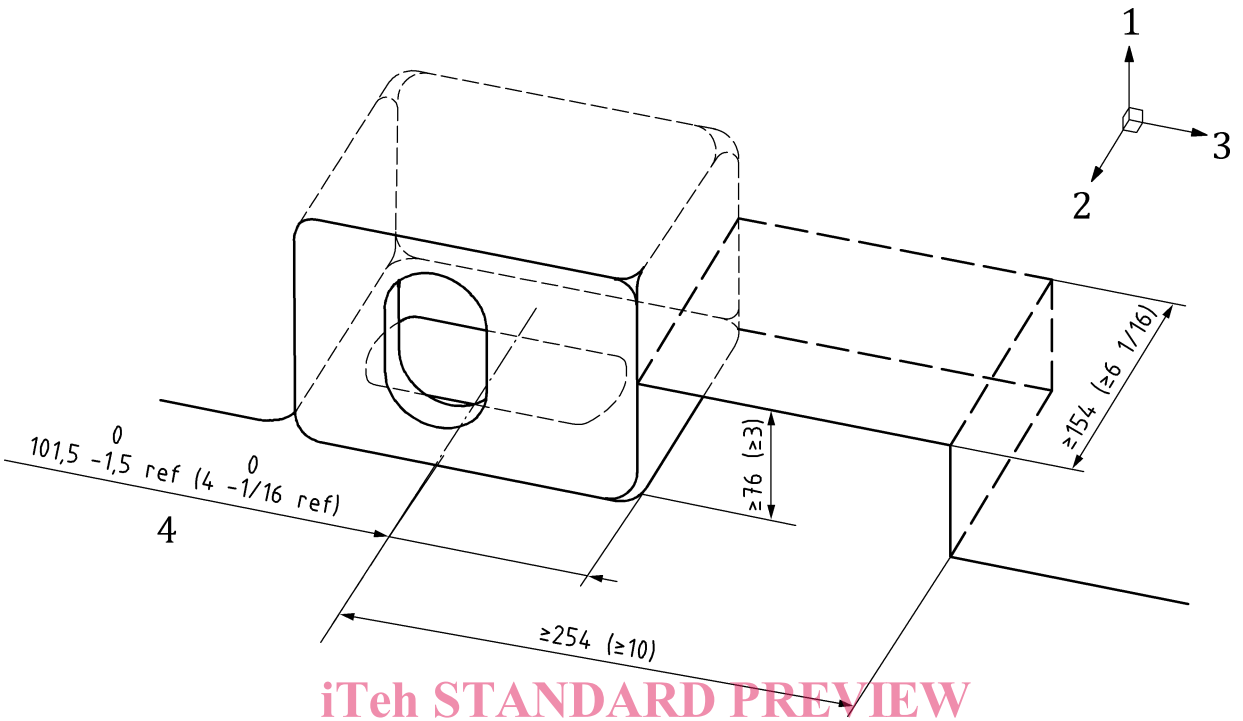
5.3.3 For ITU, the level of the underside of the base structure is not specified, except in so far as it is implied in 5.3.4.

5.3.4 For all ITU under dynamic conditions, or the static equivalent thereof, with the container having a load uniformly distributed over the floor in such a way that the combined mass of the container and test load is equal to I,8 R, no part of the base of the container shall deflect more than 6 mm[1)] below the base plane (bottom faces of the lower corner fittings).

5.3.5 The base structure shall be designed to withstand all forces, particularly lateral forces, induced by the cargo in service. This is particularly important where provisions are made for securement of cargo to the base structure of the container.

5.3.6 ITU shall have recesses longitudinally-outboard of each of their fittings in the 40ft position. If any recesses shall extend vertically to not less than 76 mm above the plane of the bottom faces of the fittings in the 40ft position, shall extend longitudinally from the longitudinally outboard faces of the fittings in the 40ft position outboard, to not less than 254 mm from the centrelines of the bottom apertures of the fittings in the 40ft position and shall extend laterally from the external width of the ITU inboard not less than 154 mm. See Figure 1.

Dimensions in millimetres
Dimensions in inches in parentheses



Key

1 UP
2 outboard
3 end of container
4 aperture

Figure 1 — Lower intermediate fitting recess for 45 foot container

5.4 End structure

For ITU, the sideways deflection of the top of the container with respect to the bottom of the ITU, at the time it is under full transverse rigidity test conditions, shall not cause the sum of the changes in length of the 2 diagonals to exceed 60 mm.

5.5 Side structure

For ITU, the longitudinal deflection of the top of the container with respect to the bottom of the container, at the time it is under full longitudinal rigidity test conditions, shall not exceed 25 mm.

5.6 Walls

Where openings are provided in end or side walls, the ability of these walls to withstand tests Nos. Five and 6 shall not be impaired.

5.7 Door opening

Each ITU shall be provided with a door opening at least at one end.

All door openings and end openings shall be as large as possible.