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BSI Standards Publication

Transport packaging — Small load container systems

Part 3: Bond Stackable System (BSS)

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National foreword

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Part 3: Bond Stackable System (BSS)

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 122, *Packaging*.

ISO 19709 consists of the following parts, under the general title *Transport packaging — Small load container systems*:

— *Part 1: Common requirements and test methods*

— *Part 2: Column Stackable System (CSS)* [Technical Specification]

— *Part 3: Bond Stackable System (BSS)* [Technical Specification]

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Introduction

The small load container (SLC) system specified in this part of ISO 19709 was first conceived for handling, storage and transport of goods and designed to meet the needs of automotives manufacturers and their suppliers.

The multi-functional design of its elements allow a SLC system manufactured in accordance with ISO 19709 to meet the requirements of different manual, mechanical and automatic handling, transport and storage systems in the automotive industry transportation chain. It is likely that this system of SLCs and accessories will frequently be used in a pool.

The special characteristic of the system specified in ISO 19709 is the self-securing mechanism of the unit load in the column stack. For this reason this system is called column stackable system.

The CS system consists of the following elements:

— CSS-SLC;

— Lid [the prefix “D” reflects the German term for “lid” (Deckel)];

— Pallet cover [the prefix “A” reflects the German term for “cover” (Abdeckung)].

The use of CSS-SLC systems with palletized loads is discussed in Annex A.

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Transport packaging — Small load container systems —

Part 3:
Bond Stackable System (BSS)

1 Scope

This part of ISO 19709 specifies the main characteristics and the testing of durable, reusable, parallelepipedic containers and their accessories which form a bond stackable system (BSS) designed to contain bulk or precisely located component loads up to maximum load of 20 kg used for automotive industry applications.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 19709-1:—[1], *Transport packaging — Small load container systems — Part 1: Common requirements and test methods*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 19709-1 and the following apply.

3.1
BSS small load container
small load container (SLC) with special functional features which ensure a mutual compatibility

3.2
self-securing
design feature which allows the base of an BSS-SLC to interlock with a system pallet to ensure stability of a stack of BSS-SLCs without use of additional securing measures such as strapping, stretch, or shrink wrapping

3.3
pallet cover
system element with a safeguarding and protective function that closes the top of the loading unit with a level surface that distributes the mass of overlying loads in a stack

3.4
SLC capacity
usable inner volume which is calculated by multiplying the usable inner length by the usable inner width (both measured at half height) and the usable inner height

3.5
SLC lid (D 65, D 45, D 35)
BSS-SLC and CSS-SLC system elements with virtually neutral height for protection of the cargo

Note 1 to entry: The prefix “D” reflects the German term for “lid” (Deckel).

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Note 2 to entry: The number 65 means lid for the 600 mm × 400 mm size containers. The number 45 means lid for the 400 mm × 300 mm size containers. The number 35 means lid for the 300 mm × 200 mm size containers.

3.6
SLC unit load
load consisting of a SLC which forms a unit for handling, transport, stacking and storage

4 Characteristics

The heights of BSS SLCs are determined in such a way that when used in combination with a 150 mm high pallet and a cover they form a nominal unit load height of 1 000 mm (see Annex A).

The bond stackable system is characterized by the following features:

a) maximum load: 20 kg;

b) "load space" and "functional space for handling" are clearly separated;

c) smooth, flat internal SLC surfaces without undercuts permit rapid, reliable manual removal of the contents and mechanical/automatic filling and emptying;

d) functional features see Clause 6.

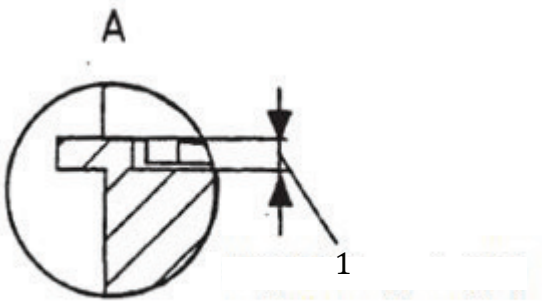
5 Dimensions, masses and applied loads

5.1 BSS SLC

5.1.1 Main dimensions and tolerances

When tested in accordance with ISO 19709-1:—, Annex A, A.2.1, A.2.2 and A.2.4, the main dimensions of the BSS SLC shall be as given in Table 1.

The flange height shall be 15 mm (see Figure 1).



Key
1 height ≥ flange height

Figure 1 — Flange height

The stacking clearance shall ensure an easy location when two BSS SLCs are stacked. Stacking clearance in length and width of two BSS SLCs may not exceed 4,8 mm.

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