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Edition 1.1

**CKS**

## **Foam mattresses for hospitals**

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**Notice**

Except for purposes of tender or contract, no person may claim or create the impression that commodities comply with this specification.

**Table of changes**

<b>Change No.</b>	<b>Date</b>	<b>Scope</b>
Amdt 1	2012	Amended to change the designation of SABS standards to SANS standards, to convert the grades and classes of mattresses, and to update referenced standards.

**Foreword**

This coordinating specification is a technical agreement developed in accordance with SANS 1-1, and approved by National Committee SABS CKS 7135, *Engineering and built environment*.

This document was published in June 2012.

This document supersedes CKS 615:1991 (first edition).

A vertical line in the margin shows where the text has been technically modified by amendment No. 1.

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## Foam mattresses for hospitals

### 0 Applicable standards

**0.1** The latest issues of the following standards form part of this specification:

BS 5852, *Methods of test for assessment of the ignitability of upholstered seating by smouldering and flaming ignition sources.*

CKS 237, *Bassinets (cribs) with stands.*

CKS 373, *Recovery beds (X-ray type).*

CKS 447, *High-low beds.*

CKS 635, *Adjustable ward beds.*

~~CKS 685, *Mattress covers.*~~

Amdt 1 |

SANS 521, *Hospital beds and cots.*

~~SANS 640, *Flexible polyurethane (polyether) foams.*~~

Amdt 1 |

SANS 778, *Patients' trolleys.*

SANS 883/ISO 5999, *Flexible cellular polymeric materials – Polyurethane foam for load-bearing applications excluding carpet underlay – Specification.*

Amdt 1 |

### 1 Scope

**1.1** This specification covers the requirements for three types of foam mattresses (excluding the cover), used in hospitals and health care institutions. (Requirements for standard foam, flame retardant foam and composite (standard) type foam mattresses are given.)

NOTE Deleted by amendment No. 1.

### 2 Definitions

For the purpose of this specification the following definitions shall apply:

**acceptable**  
acceptable to the purchaser

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### **objectionable**

objectionable to the purchaser

### **standard foam**

foam having no specified properties in regard to its flame resistance

## 3 Requirements

### 3.1 Types

The mattresses shall be one of the following types, as specified by the purchaser:

- a) **Type 1(S)**. Standard foam mattress, available in all sizes (except sizes No. 2 and 4) given in table 1.
- b) **Type 2(CO)**. Composite foam mattress with hard and soft slabs constructed from standard foam, available only in sizes No. 2 and 4 of table 1.
- c) **Type 3(FR)**. Flame retardant foam mattress, available in all sizes (except sizes No. 2 and 4) given in table 1.

### 3.2 Sizes

- a) A mattress shall be one of the sizes given in table 1, as specified by the purchaser.
- b) Tolerances on the nominal sizes given in table 1 shall be as follows:

Length, mm	+13 -0
Width, mm	+6 -0
Thickness, mm	+5 -0

**Table 1 — Sizes**

1	2	3
Size No.	Nominal size (length × width × thickness) mm	Recommended use
1	1 980 × 910 × 125	Ward bed (SANS 521), Adjustable ward bed (CKS 635), high- low bed (CKS 447), psychiatric bed (SANS 521), adult cot (SANS 521).
*2	1 980 × 910 × 160	
3 *4	1 980 × 760 × 125 1 980 × 760 × 160	Ward bed (narrow width) (SANS 521) and psychiatric bed (narrow width) (SANS 521)
5	1 350 × 760 × 100	Children's cot (SANS 521)
6	920 × 560 × 100	Infant's cot (SANS 521)
7	630 × 350 × 50	Bassinet (CKS 237)
8	1 320 × 900 × 125; and 630 × 900 × 125	Obstetric bed (SANS 521)
9	1 980 × 660 × 100	Recovery bed (CKS 373)
10	1 780 × 535 × 50	Patient's trolley (SANS 778)
*Type 2 only.		

### 3.3 Material

**3.3.1 Type 1 mattress.** A type 1 mattress shall consist of a single slab of homogeneous flexible polyurethane foam (without corrections or repairs) that complies with the requirements of class S, grade 130 of SANS 883. **Amdt 1**

**3.3.2 Type 2 mattress.** A type 2 mattress shall consist of two slabs of flexible polyurethane foam bonded or glued together. Each slab shall be of homogeneous foam (without corrections or repairs). One slab shall be of a foam that complies with the requirements for class S, grade 130 of SANS 883 and has a nominal thickness of 65 mm and the other slab shall be of a foam that complies with the requirements for class S grade 170 of SANS 883 and has a nominal thickness of 95 mm. **Amdt 1**

**3.3.3 Type 3 mattress.** A type 3 mattress shall consist of a single slab of homogeneous flexible polyurethane foam (without corrections or repairs) that has a density of at least that of class S of SANS 883, and the same hardness factor as grade 130 of SANS 883. The foam shall comply with class S grade 130 of SANS 883 in respect of the requirements for compression set and fatigue resistance. In addition, the fire resistance properties of the foam shall be such that the foam will pass the crib 5 ignition test given in BS 5852. **Amdt 1**

### 3.4 Type 2 slab adhesion

The two slabs comprising a type 2 mattress shall adhere to each another uniformly and acceptably. The adhering edges shall not have any single unadhered edge length exceeding 100 mm.

### 3.5 Finish

All surfaces of the mattress shall be smooth and free from defects, including splits, tears and large voids. The mattress shall be clean in appearance and shall not have any objectionable odour. The colour of the mattress shall be any colour acceptable to the purchaser.