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DRAFT EAST AFRICAN STANDARD

**Wooden flush door shutters of solid core type — Specification — Part 2:
Particleboards and hardwood face panels**

EAST AFRICAN COMMUNITY

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Foreword

Development of the East African Standards has been necessitated by the need for harmonizing requirements governing quality of products and services in the East African Community. It is envisaged that through harmonized standardization, trade barriers that are encountered when goods and services are exchanged within the Community will be removed.

The Community has established an East African Standards Committee (EASC) mandated to develop and issue East African Standards (EAS). The Committee is composed of representatives of the National Standards Bodies in Partner States, together with the representatives from the public and private sector organizations in the community.

East African Standards are developed through Technical Committees that are representative of key stakeholders including government, academia, consumer groups, private sector and other interested parties. Draft East African Standards are circulated to stakeholders through the National Standards Bodies in the Partner States. The comments received are discussed and incorporated before finalization of standards, in accordance with the Principles and procedures for development of East African Standards. XXXXXX.

East African Standards are subject to review, to keep pace with technological advances. Users of the East African Standards are therefore expected to ensure that they always have the latest versions of the standards they are implementing.

The committee responsible for this document is Technical Committee EASC/TC: 022,

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Wooden flush door shutters of solid core type — Specification— Part 2: Particleboards and hardwood face panels

1 Scope

This Draft East Africa Standard specifies requirements and sampling methods of wooden flush door shutters of solid core type with particleboard face panels, for both veneered and unveneered, and hard-board face panels.

2 Normative references

The following referenced documents 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 16893, Wood-based panels — Particleboard

DEAS 1065-1, Wooden flush door shutters of solid core type — Specification— Part 1: Plywood face panels

3 Terms and definitions

For the purposes of this document, the following terms and definitions in DEAS 1065-1 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Requirements

4.1 Type and designation

Solid core wooden flush door shutters with particleboard face panels shall be of decorative type or non-decorative (paintable) type. The designation of various types of wooden flush door shutters shall be based on the core and the type of face panel as given in Table 1.

Table 1 — Nature of solid core wooden flush door shutters with particleboard face panels

Core	Type	Abbreviations
Blockboards	Decorative with skins of decorative veneered particleboards	BDPV
	Non-decorative (paintable) with skins of particleboards unveneered	BNP
	Non-decorative (paintable) with skins of particleboards veneered with commercial veneers	BNPV

Particleboard with or without blockboard	Decorative with skins of decorative veneered particleboards	PDPV*
	Non-decorative with skins of particleboards unveneered	PNP*
	Non-decorative with skins of particleboards veneered with commercial veneers	PNPV*
* Where particleboard beaded core is used, the designations will be PE D PV, PE N P and PE N PV respectively.		

4.2 Sizes

4.2.1 Sizes of the wooden flush door shutters shall generally conform to the modular sizes specified in Table 2 (see Figure 1). Sizes other than modular sizes, as agreed to between the manufacturer and the purchaser, may also be permitted; however, the thickness of shutters in such cases shall not be less than that specified against the nearest higher modular size given in 4.2.3.

Table 2 — Dimensions of wooden flush door shutters

Designation of doors	Width mm	Height mm	
		min.	max.
8 DS 20	710	1 945	1 945
8 DS 21	760	1 980	2 045
9 DS 20	810	2 005	2 030
9 DS21	860	2 005	2 030
10 DS 20	900	2 005	2 100
10 DS 21	915	2 005	2 100
12 DT 20	1 100	1 905	2 100
12 DT 21	1 500	2 005	2 100

NOTE 1 Door, S =Single shutter, and T = Double leaf shutter.

NOTE 2 The designation indicates the size of door opening, the first number referring to width in modules of 100 mm and the last number the height in modules of 100 mm.

NOTE 3 In arriving at the standard widths and heights for wooden flush door shutters, an allowance of 60 mm has been made for door frames, 40 mm for floor finish and 5 mm for clearance all round (see Figure 1) between the door opening and door frame and 15 mm for rebate all round for the wooden flush door shutter into the frame. Furthermore, a gap of 5 mm has been provided between the bottom of the wooden flush door shutter and the finished floor level.

4.2.2 In case the modular height is taken from the finished floor level, the height of the wooden flush door shutters shall be the one given in column 3 of Table 2 for maximum height. In the case of double leaved shutters, the rebate and clearance between the shutters shall be as given in DEAS 1065-1.

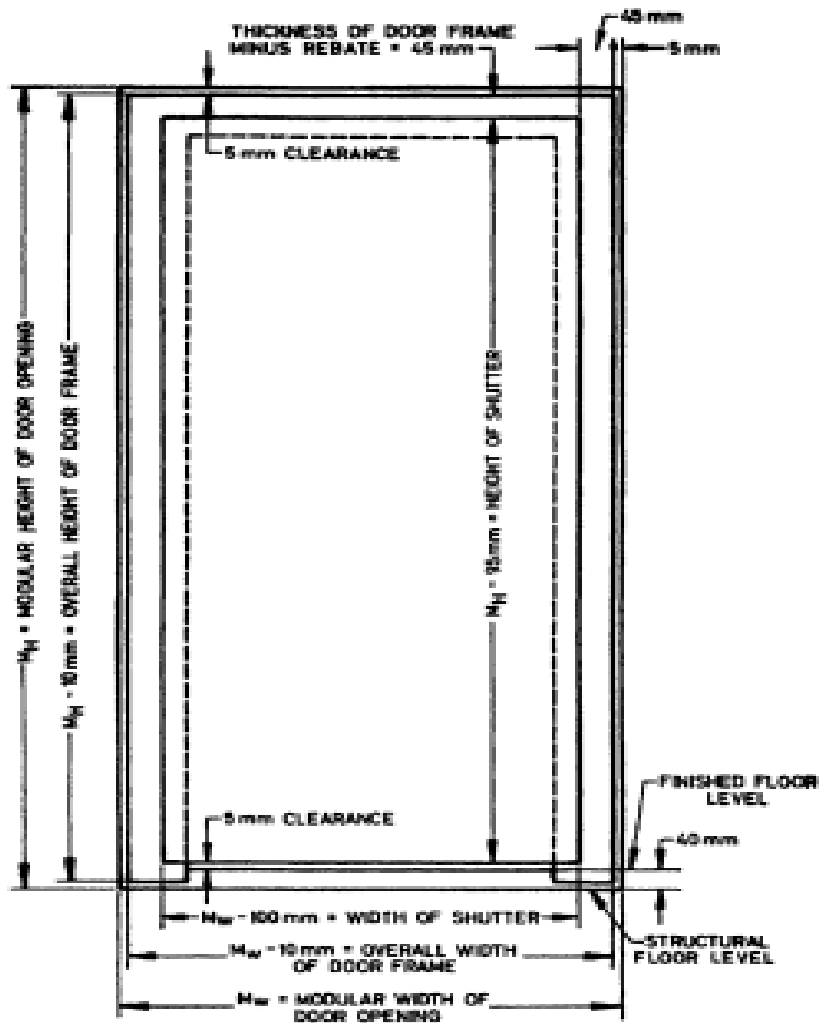


Figure 1 — Sketch illustrating dimensions of wooden flush door shutters

NOTE It is recommended that, as far as possible, the thickness adopted for wooden flush door shutters should be as given 4.2.3.

4.2.3 Nominal thickness of wooden flush door shutters shall be 25 mm, 30 mm, 35 mm, 40 mm, 45 mm and 50 mm.

Table 3 — Thickness of wooden flush door shutters

Wooden flush door designation	Thickness mm
8 DS 20 and 8 DS 21	25
9 DS 20 and 9 DS 21	30 or 35
10 DS 20 and 10 DS 21	40
12 DT 20 and 12 DT 21	45 or 50

4.2.4 Tolerances shall:

- a. on nominal width and height be + 3mm - 0 mm; and
- b. on nominal thickness be ± 1.2 mm.

The thickness of the wooden flush door shutters shall be uniform throughout with a permissible variation of not more than 0.8 mm when measured at any two points.

4.3 Material

4.3.1 Timber

Species of timber, moisture content and permissible defects therein and preservative treatment required for use in the core and lipping shall conform to the relevant requirements specified in DEAS 1065-1.

4.3.2 Particleboards

4.3.2.1 Particleboards used for core as well as face panels of wooden flush door shutters shall be made with phenol formaldehyde adhesive or any other suitable adhesives and the swelling in thickness and length when tested, shall not exceed 5 %.

4.3.2.2 Unveneered particleboard used for face panel of wooden flush door shutters of BNP and PNP types shall conform to Types FPSI or FPTH of ISO 16893, and shall be manufactured using Type BWR (Boil Weather Resistant) synthetic resin adhesives and out of naturally durable timbers.

4.3.2.3 For BDPV and PDPV types of flush door shutters, face panel of only veneered particleboard of Type ESD shall be used.

4.3.2.4 For wooden flush door shutters of BNPV and PNPV (veneered), the particleboard with commercial veneers conforming to type ESC shall be used.

4.3.3 Hardboard face panel

For wooden flush door shutters with fibre hardboard face, only tempered hardboard shall be used.

4.3.4 Adhesive

Adhesive used for bonding particleboard or hardboard face panels to the core shall be phenol formaldehyde synthetic resin or any other suitable adhesives conforming to Boil Weather Proof (BWP) type.

4.4 Construction

4.4.1 The construction of wooden flush doors shall be in accordance with the relevant requirements specified in DEAS 1065-1 with modification as given in 4.4.1 and 4.4.2.

4.4.2 The face panel shall be formed by gluing, by the hot press process on both faces of the core of particleboards or veneered particleboards or hardboard. The thickness of each of the face panels of particleboard shall be not less than 4 mm and of hardboard not less than 3 mm.

4.4.3 Wooden flush door shutters with particleboard beaded type core shall be manufactured with core of particleboards of types FPSI or FPTH conforming to ISO 16893 or veneered particleboard of types EXSOD or EXSOGP. The beading shall be of solid timber of any species. The beading shall be to the full thickness of the door. The depth of beading all round shall not be less than 25 mm excluding the tongue for the joint. The beading shall be provided all round and shall be fixed by tongue and groove joint using BWP type adhesives and the beading shall be further secured by additional screws of adequate length. The tongue shall not be less than 12 mm deep, and its width shall not be less than one third of the finished thickness of the wooden flush door shutters. The timber used for beading for wooden flush doors with decorative face shall preferably

be of the same species as the face veneers unless otherwise agreed to between the purchaser and the supplier as specified in DEAS 1065-1.

4.5 Fitting of locks

4.5.1 Wooden flush door shutters shall be shop-prepared for taking mortice locks or latches as may be ordered. In case of wooden flush doors with particleboard core, suitable blocks of wood of size 150 mm × 50 mm shall be provided in the thickness of the core at a height of about 1 mm above the bottom edge. For other hardware, suitable blocks of wood may be provided where the purchaser so desires.

4.5.2 Where special blocks are provided for fixing hardware, these portions shall be so marked in indelible ink.

4.6 Workmanship and finish

4.6.1 All the four edges of the wooden flush door shutter shall be square. The shutter shall be free from twist or warp in its plane.

4.6.2 Both faces of the wooden flush door shutters shall be sanded to a smooth even texture. If required by the purchaser, all surfaces of wooden flush door shutters which are required to be painted ultimately shall be covered evenly by painting with suitable priming coat as may be ordered by the purchaser.

4.6.3 Workmanship and finish of face panels shall conform to the requirements specified for the respective grades and types of particleboards specified in ISO 16893.

5 Tests

The various tests for wooden flush door shutters shall be as laid down in DEAS 1065-1.

6 Sampling and criteria for conformity

Sampling and criteria for conformity for wooden flush door shutters shall be as laid down in DEAS 1065-1.

7 Marking

Each wooden flush door shutter shall be legibly and indelibly marked on any of its edges with the following information:

- a) name of the manufacturer and trade-mark, if any;
- b) abbreviation indicating the nature of construction of the wooden flush door shutter;
- c) whether the size of the wooden flush door shutter is 'modular' or 'non-modular';
- d) designation for modular sizes; or the actual size (width and height) for non-modular sizes along with appropriate symbols for wooden flush door shutters;
- e) thickness of wooden flush door shutters; and
- f) Products complying with requirements of this standard shall be marked with a number for this standard.

Bibliography

- [1] US 1652-2:2017, *Wooden flush door shutters — Specification for solid core type — Part 2: Particleboards and hardwood face panels*

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