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DRAFT EAST AFRICAN STANDARD

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

1 Scope

This Draft East Africa Standard specifies requirements, sampling and test methods of wooden flush door shutters of cellular and hollow core type with particleboard face panels (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 1804, Doors — Terminology

ISO 16893, Wood-based panels — Particleboard

EAS 24, Timber industry — Glossary of terms

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 EAS 24 and ISO 1804 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 Types and designation

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

Table 1 — Nature of construction of wooden flush door shutters (cellular and hollow core type) with particleboard face panels

Core	Type	Abbreviations
Cellular	Decorative with skins or decorative veneered 'particle boards	CDPV
	Non-decorative with skins of particle boards unveneered	CNP
	Non-decorative with skins of particle boards veneered with commercial veneers	CNPV
Hollow	Decorative with skins of decorative veneered particle boards	HDPV
	Non-decorative with skin. of particle boards unveneered	HNP
	Non-decorative with Skins or particle boards veneered with commercial veneers	HNPV

4.2 Size and tolerance

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 those 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	700	1 905	1 945
8 DS 21	700	2 005	2 045
9 DS 20	800	1 905	1 945
9 DS21	800	2 005	2 045
10 DS 20	900	1 905	1 945
10 DS 21	900	2 005	2 045
12 DT 20	1 100	1 905	1 945
12 DT 21	1 100	2 005	2 045

NOTE 1 D - Door, S - Single shutters, and T - Double shutters.

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 is the height in modules.

NOTE 3 In arriving at the standard widths and height 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 door opening and door frame and 15 mm for rebate all round for the shutter into the frame.

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 shutters, the rebate and clearance between the shutters shall be as given in DEAS 1065-1.

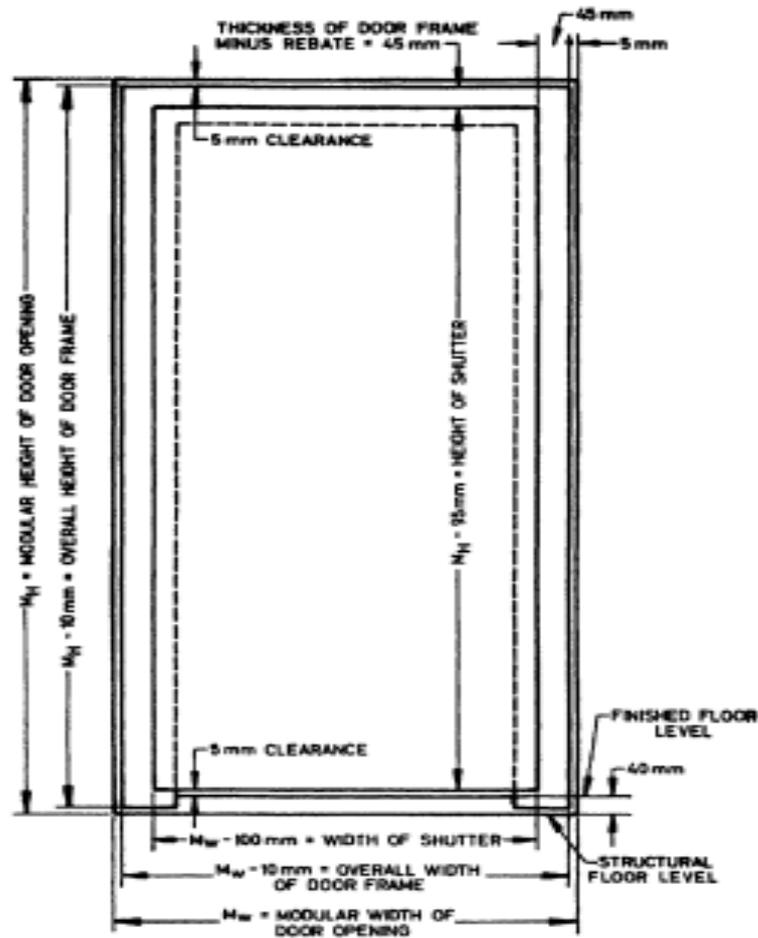


Figure 1 — Sketch illustrating dimensions of wooden flush door shutter

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.

4.2.4 It is recommended that as far as possible the thickness adopted for flush door should be as given in Table 3.

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

4.2.5 Tolerances shall:

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

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

4.3 Materials

4.3.1 Timber

The timber for use in the core of wooden flush door shutters shall be of suitable hardwood and/or softwood species.

4.3.2 Particleboard

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 in accordance with ISO 16893 and it shall not exceed 5 %.

4.3.2.2 Unveneered particleboard used for face panel of wooden flush door shutters of CNP and HNP types shall conform to Types FPSI or FPTH and shall be manufactured using Type Boil Weather Resistant (BWR) suitable adhesives and out of naturally durable timbers.

4.3.2.3 For CDPV and HDPV types of wooden flush door shutters, face panel of only veneered particleboards of Type ESD shall be used. For wooden flush door shutters of CNPV and HNPV, of veneered particleboards with commercial veneers, only Type ESC shall be used.

4.3.3 Fibre hardboard

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 fibre hardboard face panels to the core, shall be phenol formaldehyde synthetic resin or any other suitable adhesives conforming to BWP type.

4.4 Construction

4.4.1 The construction of wooden flush door shutters shall be in accordance with the relevant requirements laid down in DEAS 1065-1 with modifications as specified in 4.4.2.

4.4.2 The particleboard or veneered particleboard for the face panel shall not be less than 6 mm thick in the case of cellular core flush door shutters and not less than 9 mm thick in the case of hollow core flush door shutters. Hardboard, if used for the face panel, shall not be less than 4 mm in thickness in the case of cellular core flush door shutters and not less than 6 mm in thickness in the case of hollow core flush door shutters. The panel shall be glued under pressure on both faces of the core by the hot press process.

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. Where the purchaser so desires, suitable block of wood may be provided for fixing the hardware. In the absence of specified requirements, the sizes of blocks shall preferably correspond to the maximum size of lock.

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 wooden flush door shutter shall be free from twist or warp in its plane.

4.6.2 Both faces of the wooden flush door shutter 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 particle boards as 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 done in accordance with clause 6 of 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 trademark, if any;
- b) abbreviation indicating the nature of construction of the wooden flush door shutter;
- c) designation as specified in Table 2 of the standard for modular sizes; or the actual size (width and height) for non-modular sizes along with appropriate symbols for wooden flush door shutters as given in Table 2;
- d) thickness of door shutters;
- e) products complying with requirements of this standard shall be marked with a number for this standard

Bibliography

- [1] Wooden flush door shutters — Specification for cellular and hollow core type — Part 2: Particleboards and hardwood face panels

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