

# RWANDA STANDARD

423-4

Second edition

2025-mm-dd

Furniture — Functional sizes and Performance requirements

Part 4: Chairs and tables for home furniture

ICS 97.140

Reference number

DRS 423-4: 2025

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In order to match with technological development and to keep continuous progress in industries, standards are subject to periodic review. Users shall ascertain that they are in possession of the latest edition

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# **Foreword**

Rwanda Standards are prepared by Technical Committees and approved by Rwanda Standards Board (RSB) Board of Directors in accordance with the procedures of RSB, in compliance with Annex 3 of the WTO/TBT agreement on the preparation, adoption and application of standards.

The main task of technical committees is to prepare national standards. Final Draft Rwanda Standards adopted by Technical committees are ratified by members of RSB Board of Directors for publication and gazettment as Rwanda Standards.

RS 423-4 was prepared by Technical Committee RSB/TC 54, Timber, furniture and engineered wood.

In the preparation of this standard, reference was made to the following standard:

- 1) ISO 21887- 2007-11, Durability of wood and wood based products Use classes
- 2) GS 983: 2009, Furniture Specification for Furniture Components

The assistance derived from the above source is hereby acknowledged with thanks.

RS 423 consists of the following parts, under the general title *Furniture — Functional sizes and performance requirements*:

- Part 1: Chairs and tables for office furniture
- Part 2: Storage units
- Part 3: Chairs and tables for educational institutions
- Part 4: Chairs and tables for home furniture

This second edition cancels and replaces the first edition (RS 423 2: 2020), clauses 2 and 5 which have been technically revised.

#### Committee membership

The following organizations were represented on the Technical Committee on Timber, Furniture and Engineered wood (RSB/TC 54) in the preparation of this standard.

**CAMOSAG LTD** 

Cleaner Production and Climate Innovation Centre (CPCIC)

Energy Development Corporation Limited (EDCL)

GIZ

National Industrial Research and Development Agency (NIRDA)

Rwanda Inspectorate, Competition and Consumer Protection Authority (RICA)

Rwanda Transport development Agency (RTDA)

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# Introduction

Despite the Rwandan growth trend, the wood sector has not been implemented as required to produce high quality wood products and vigorous competitive market. The quality of wooden furniture is highly affected by the quality of timber, standardized production chain, quality control mechanism and grading rules. The lack of aforesaid factors results into market dominated by poor quality wooden furniture, compromised safety and unfair competition at the market.

The emerging market dynamics show that consumer's preferences have gradually shifted from furniture made by local timbers to the imported ones, which is considered as a limiting factor to the development and growth of the wood economy in Rwanda.

To ensure a positive trade balance in wood market there is a dire need to improve and ensure quality of domestic wood products.

This Standard is one of the series of standards on furniture in Rwanda. The series currently consists of the following:

RS 413: 2020, Furniture — Quality and grading of wooden furniture

RS 423-1: 2020, Furniture — Functional sizes and Performance Requirements — Part 1: Chairs and tables for office furniture

RS 423-2: 2020, Furniture — Functional sizes and Performance Requirements — Part 2: Storage units;

RS 424: 2020, Furniture — Bedsteads — Specification

RS 427: 2020, Round and sawn timber — Nomenclature of timbers used in Rwanda

DRS 433: 2019, Furniture — Chairs and tables for home furniture — Functional sizes, strength, durability and stability for seating and tables (Under development)

DRS 434: 2019, Furniture — Tables — Test methods for the determination of stability, strength and durability (Under development)

DRS 435: 2019, Timber in joinery — General requirements (Under development)

RS ISO 7173: 1989, Furniture — Chairs and stools — Determination of strength and durability.

# Furniture — Functional sizes and performance requirements — Part 4: Chairs and tables for home furniture

# 1 Scope

This Draft Rwanda Standard specifies the basic functional sizes for chairs and tables used as home furniture. It includes requirements for strength and durability, but does not include requirements for materials, design, construction or quality.

#### 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.

RS ISO 7173, Furniture — Chairs and stools — Determination of strength and durability

RS 427, Round and sawn timber — Nomenclature of timbers used in Rwanda

RS ISO 19682, Furniture — Tables — Test methods for the determination of stability, strength and durability

RS ISO 21015, Office furniture — Office work chairs — Test methods for the determination of stability, strength and durability

# 3 Terms and definitions

For the purposes of this standard, the following terms and definitions apply.

3.1

#### home chair

chair with or without armrest, cushioned or not, used for seating at home

3.2

#### armchair

chair with side supports for a person's arms

3.3

#### recliner chair

armchair or sofa that reclines when the occupant lowers the chair's back and raises its front

Note 1 to entry: The backrest of a recliner chair can be tilted back, and a footrest may be extended by means of a lever on the side of the chair, or may extend automatically when the back is reclined.

#### 3.4

# dining chair

chair used at a dining table

Note 1 to entry: Aa dining chair can have armrests or not

3.5

#### sofa/Love chair

upholstered seat for two people or more with back and armrests

3.6

#### easy chair

upholstered armchair for lounging

3.7

#### bar stool

stool for customers to sit on at a bar

3.8

#### rocker chair

chair mounted on rockers or springs, which can rock back and forth

3.9

### coffee table

table placed in front of seating

3.10

#### console table

table designed to be placed against or fixed to a wall usually designed to hold a TV and/or storage

#### 3.11

# dining Table

table where meals are served

#### 3.12

#### centre table

table of any shape usually kept in front of a sofa as a centre piece

#### 3.13

#### end table

small table placed beside a sofa or other piece of furniture

#### 3.14

#### card table

table for playing cards, typically having legs that fold flat for storage and a baize surface

# 3.15

#### writing table

table designed or used for writing at home

#### 3.16

#### drum table

table having a cylindrical top with drawers or shelves in the skirt, on a central post with three or more outwardly curving legs

#### 3.16

# hallway / Entry table

table fitted against a wall

#### 3.17

# sewing table

table or desk used for sewing

# 4 Dimensions for home tables and chairs

# 4.1 Home tables

Dimensions for home tables shall be as provided in Table 1:

Table 1 — Dimensions for home tables (dimensions in millimetres)

Type of table	Height	Length	Width/Depth
Card table	660 - 762	762 - 914	762 - 914
Coffee table, round	381 - 432	914 - 1067 (Diameter)	914 - 1067 (Diameter)
Coffee table, rectangular	381 - 432	914 - 1524	<b>457</b> - 610
Console table	710	1219 - 1372	406 - 457
Dining table, rectangular	710 - 762	1524 -2032	914 - 1067
Dining table, round	710 - 762	1016 (Minimum Diameter)	1016 (Minimum Diameter)
End table	457 - 610	610 - 711	457 - 508
Writing table	711 - 762	914 - 1016	508 - 610
Centre table	430 - 500	1040 - 1200	560 -650
Drum table	400 (Minimum)	910 (Diameter)	910 (Diameter)
Hallway/Entry table	860-910	860 - 1830	41 - 51
Sewing table	660	Any	430 (Minimum)

Table 2 — Dimensions of home chairs (dimensions in millimetres)

Tuna af ahair	Seat height	Seat width			Backrest	
Type of chair		Back	Front	Seat depth	height	Recline angle
Dining chair	405 - 430	381 - 400	381 - 455	405 - 420	305 - 505	5 (Maximum Degrees)
Sofa chair/Love seat	350 - 450	1420 1520	1420 - 1520	455 - 555	1381 - 455	25 (Maximum Degrees)
Easy chair	405	380	380	405	381 - 405	95 - 120 Degrees
Bar stool	710 -760	381 -455		305 - 405 (Rectangular)	255 - 355	-

			405 - 430 diameter (ff round)		
Rocker chair	405 - 430	457 -560	405 - 457	1015	-
Recliner chair	450 - 510	760 - 930	510 - 600	735	95 - 180 Degrees
Armchair	450 - 560	960 -980	520 - 620	390 - 450	

NOTE 1 If armrests are used on a dining chair, they should be between 18 mm to 23 mm above the seat.

# 5 Strength and durability for home tables and chairs

# 5.1 Strength and durability for home tables

When tested in accordance with ISO 19682, a home table shall comply with the following.

- a) horizontal displacement of the top from its original position shall not exceed 5 mm;
- b) No deformation, gap, fracture or apparent loosening of a joint intended to be rigid shall develop;
- recorded deflection shall not exceed 0.5 mm per 0.1 m² of area of the top being tested;
- d) No loosening of the top at any securing point shall be evident; and
- e) table successfully withstands the static load and overbalancing forces applied.

# 5.2 Strength and durability for home chairs

When tested in accordance with RS ISO 7173 and ISO 21015, home chair shall not demonstrate any:

- a) fracture or cracking of any member, component or joint;
- b) loosening of joints intended to be rigid;
- c) free movement of any components that exceeds the free movement noted in the initial;
- d) deformation or wear of any part or component that will affect the chair's function;
- e) audible noise developed during testing;
- f) deterioration of the operation of any movable or adjustable parts; nor

NOTE 2 For easy chair, the recommended armrests shall have 13 mm to 20 mm in height and 5 mm to 10 mm in width

NOTE 3 A full size sofa measures about 230 mm in width.

NOTE 4 For rocker chair, in a stationary position the seat back should tilt back approximately 25 degrees from the vertical with a seat to seat back of about 95 degrees, the runners commonly have a horizontal extension of about 762 mm with a curvature radius of 915 mm to 965 mm.

g) overturning movement of the chair and its components.

#### 6 Marking

The following shall be legibly and indelibly marked on the underside of table tops or under the seat of chairs and tables in a manner that will not impair the finish and strength of the article:

- a) manufacturer's name and trade name or trade mark;
- of outbir review of of other parties. date of manufacture or the production batch identification number or letter; and b)
- timber species used in accordance with RS 427. c)

# **Bibliography**

- [1] EN 1728, Furniture Seating Test methods for the determination of strength and durability, 2014
- [2] Indian Institute of technology, Kanpur, *Technical specifications*, 2015 [3] Eckelman,C.A. *Performance testing of side chairs*, 1999.
- [4] RS ISO 7172:1988, Furniture Tables Determination of stability
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