



**RWANDA  
STANDARD**

**DRS  
423-4**

Second edition

2025-...-...

---

---

**Furniture — Functional sizes and  
Performance Requirements**

**Part 4: Chairs and tables for home  
furniture**

ICS 97.140

---

---

Reference number

DRS 423-3: 2025

© RSB 2024

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

© RSB 2025

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without prior written permission from RSB.

Requests for permission to reproduce this document should be addressed to:

Rwanda Standards Board

P.O Box 7099 Kigali-Rwanda

KK 15 Rd, 49

Tel. +250 788303492

Toll Free: 3250

E-mail: [info@rsb.gov.rw](mailto:info@rsb.gov.rw)

Website: [www.rsb.gov.rw](http://www.rsb.gov.rw)

ePortal: [www.portal.rsb.gov.rw](http://www.portal.rsb.gov.rw)

# Contents

Page

Foreword .....	V
<b>1</b> <b>Scope</b> .....	<b>1</b>
<b>2</b> <b>Normative references</b> .....	<b>1</b>
<b>3</b> <b>Terms and definitions</b> .....	<b>1</b>
<b>4</b> <b>Functional sizes requirements</b> .....	Error! Bookmark not defined.
<b>4.1</b> <b>Types</b> .....	Error! Bookmark not defined.
<b>4.2</b> <b>Dimensions</b> .....	Error! Bookmark not defined.
<b>4.3</b> <b>Size</b> .....	Error! Bookmark not defined.
<b>4.4</b> <b>Appearance and surface finish</b> .....	Error! Bookmark not defined.
<b>5</b> <b>Performance requirements</b> .....	Error! Bookmark not defined.
<b>5.1</b> <b>Requirements for tables</b> .....	Error! Bookmark not defined.
<b>5.1.1</b> <b>Corners of table tops</b> .....	Error! Bookmark not defined.
<b>5.1.2</b> <b>Edges of table tops</b> .....	Error! Bookmark not defined.
<b>5.1.3</b> <b>Height and working angle of table tops</b> .....	Error! Bookmark not defined.
<b>5.2</b> <b>Single tables for general use</b> .....	Error! Bookmark not defined.
<b>5.3</b> <b>Dual tables for general use, typing tables and science tables</b> .....	Error! Bookmark not defined.
<b>5.3.1</b> <b>Dimensions</b> .....	Error! Bookmark not defined.
<b>5.3.2</b> <b>Performance of dual tables</b> .....	Error! Bookmark not defined.
<b>5.3.3</b> <b>Performance of typing and science tables</b> .....	Error! Bookmark not defined.
<b>5.4</b> <b>Drawing table</b> .....	Error! Bookmark not defined.
<b>5.4.1</b> <b>Basic dimensions</b> .....	Error! Bookmark not defined.
<b>5.4.2</b> <b>Additional requirements for design</b> .....	Error! Bookmark not defined.
<b>5.4.3</b> <b>Performance of small drawing tables</b> .....	Error! Bookmark not defined.
<b>5.4.4</b> <b>Performance of large drawing tables</b> .....	Error! Bookmark not defined.
<b>5.5</b> <b>Needlework, arts and crafts, and nursery school tables</b> .....	Error! Bookmark not defined.
<b>5.5.1</b> <b>Basic dimensions</b> .....	Error! Bookmark not defined.
<b>5.5.2</b> <b>Performance</b> .....	Error! Bookmark not defined.
<b>5.6</b> <b>Specific requirements for teachers' desks</b> .....	Error! Bookmark not defined.
<b>5.6.1</b> <b>Basic dimensions</b> .....	Error! Bookmark not defined.
<b>5.6.2</b> <b>Pedestals</b> .....	Error! Bookmark not defined.
<b>5.6.3</b> <b>Drawers</b> .....	Error! Bookmark not defined.
<b>5.6.4</b> <b>Performance</b> .....	Error! Bookmark not defined.
<b>5.7</b> <b>Specific requirements for chairs and stools</b> .....	Error! Bookmark not defined.
<b>5.7.1</b> <b>Chairs for general use</b> .....	Error! Bookmark not defined.
<b>5.8</b> <b>Laboratory stools</b> .....	Error! Bookmark not defined.
<b>5.8.1</b> <b>Basic dimensions</b> .....	Error! Bookmark not defined.
<b>5.8.2</b> <b>Performance</b> .....	Error! Bookmark not defined.
<b>6</b> <b>Inspection and test methods for stability, strength and durability</b> .....	Error! Bookmark not defined.
<b>6.1</b> <b>Inspection</b> .....	Error! Bookmark not defined.
<b>6.2</b> <b>Sequence of tests</b> .....	Error! Bookmark not defined.
<b>6.3</b> <b>Impact resistance test for desk and table tops</b> .....	Error! Bookmark not defined.
<b>6.3.1</b> <b>Apparatus</b> .....	Error! Bookmark not defined.
<b>6.3.2</b> <b>Procedure</b> .....	Error! Bookmark not defined.
<b>6.4</b> <b>Static load resistance test for single tables</b> .....	Error! Bookmark not defined.
<b>6.5</b> <b>Static load resistance test for dual and drawing tables</b> .....	Error! Bookmark not defined.
<b>6.6</b> <b>Deflection resistance test for table tops</b> .....	Error! Bookmark not defined.
<b>6.6.1</b> <b>Apparatus</b> .....	Error! Bookmark not defined.

6.6.2 Procedure ..... Error! Bookmark not defined.  
6.7 Securing test for desk and table tops ..... Error! Bookmark not defined.  
6.8 Drawer load test ..... Error! Bookmark not defined.  
6.9 Backward tipping test for chairs and stools ..... Error! Bookmark not defined.  
6.9.1 Apparatus ..... Error! Bookmark not defined.  
6.9.2 Procedure ..... Error! Bookmark not defined.  
6.10 Test for colour stability of thermoplastics shells and table tops ..... Error! Bookmark not defined.  
7 Marking ..... Error! Bookmark not defined.

Copy for public comments only

## 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*

This second edition cancels and replaces the first edition (RS 423 2: 2020), clause 2 and 5 of 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

**DRS 423-4: 2025**

National Industrial Research and Development Agency (NIRDA)

Rwanda Inspectorate, Competition and Consumer Protection Authority (RICA)

Rwanda Transport development Agency (RTDA)

Ultimate Forest Company Ltd

University of Rwanda – College of Science and Technology (UR-CST)

Rwanda Standards Board (RSB) – Secretariat

Copy for public comments only

## 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 Rwanda Standard specifies the basic functional sizes for chairs and tables used as home furniture. This standard 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 19682:2023 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 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 a 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	457 - 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)**

Type of chair	Seat height	Seat width		Seat depth	Backrest height	Recline angle
		Back	Front			
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	381 - 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	
<p>NOTE 1 If armrests are used on a dining chair, they should be between 18 mm to 23 mm above the seat.</p> <p>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.</p> <p>NOTE 3 A full size sofa measures about 230 mm in width.</p> <p>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.</p>					

## **6.5 Strength and durability for home tables and chairs**

### **6.15.1 Strength and durability for home tables**

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

- horizontal displacement of the top from its original position shall not exceed 5 mm;
- 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 m<sup>2</sup> of area of the top being tested;
- No loosening of the top at any securing point shall be evident; and
- table successfully withstands the static load and overbalancing forces applied.

### **6.25.2 Strength and durability for home chairs**

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

- fracture or cracking of any member, component or joint;
- loosening of joints intended to be rigid;
- free movement of any components that exceeds the free movement noted in the initial;
- 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
- g) overturning movement of the chair and its components.

## **76** 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;
- b) date of manufacture or the production batch identification number or letter; and
- c) timber species used in accordance with RS 427.

Copy for public comments only

## 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*
- [5] ISO 7174-1:1988, *Furniture — Chairs — Determination of stability — Part 1: Upright chairs and stools*

Copy for public comments only





Copy for public comments only

---

---

Price based on 22 pages

©RSB 2020 - All rights reserved