

Caribbean Community

EDICT OF GOVERNMENT

In order to promote public education and public safety, equal justice for all, a better informed citizenry, the rule of law, world trade and world peace, this legal document is hereby made available on a noncommercial basis, as it is the right of all humans to know and speak the laws that govern them.

CRS 21 (2010) (English): Indigenous
Furniture



BLANK PAGE





CARICOM REGIONAL STANDARD

**Specification for indigenous furniture
(bamboo, rattan, wicker and nibbi)**

CRS 21: 2010



Caribbean Community



CARICOM Regional Organisation for Standards and Quality (CROSQ)

2nd Floor Nicholas House

29 & 30 Broad Street

Bridgetown, St Michael

Barbados

T: 246.622.7670 | F: 246.622.7678

Website: <http://www.crosq.org>

© CROSQ 2010 – 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 permission.

CARICOM REGIONAL STANDARD

Specification for indigenous furniture (bamboo, rattan, wicker and nibbi)

CRS 21: 2010

CARICOM Regional Organisation for Standards and Quality (CROSQ)

2nd Floor, Nicholas House
29 & 30 Broad Street
Bridgetown, St. Michael
Barbados
T: 246.622.7670 | F: 246.622.7678
Website: <http://www.crosq.org>

© CROSQ 2010 – All rights reserved. No part of this publication is to be reproduced without the prior written consent of CROSQ.

ISBN 978-976-8234-24-7
ICS 97.140

AMENDMENTS ISSUED SINCE PUBLICATION

AMENDMENT NO.	DATE OF ISSUE	TYPE OF AMENDMENT	NO. OF TEXT AFFECTED	TEXT OF AMENDMENT

ATTACHMENT PAGE FOR CRS AMENDMENT SHEETS

Committee representation

This CARICOM Regional Standard was prepared under the supervision of the Regional Technical Committee for Wooden Products (RTC #18) (hosted by CARICOM Member State, Guyana), which at the time comprised the following members.

Members	Representing
Mr. Sean Ramrattan (Chairperson)	Georgetown Chamber of Commerce and Industry
Mr. David Boodnah	Modern Industries Limited
Mr. Clyde De Haas	Courts (Guyana) Limited
Mr. Robin Diaram	Precision Woodworking
Ms Jocelyn Dow	Liana Cane Furniture
Mr. Hemraj Seecharan	Guyana Forestry Commission
Mr. Peter Singh	Melsha Furniture Store
Mr. Sewanarine Singh	Shiva Woodworking
Mr. Elton Patram (Technical Secretary)	Guyana National Bureau of Standards

Acknowledgment

Acknowledgment is made to Dr. Michael Seepersaud for his contribution to the development of this standard.

Contents

Foreword.....	1
1 Scope.....	2
2 Normative references	2
3 Terms and definitions	2
4 Material requirements	4
4.1 General	4
4.2 Rattan poles	4
4.3 Checks, shakes and breaks	5
4.4 Rattan core and peel	5
4.5 Wood	5
5 Construction	5
5.1 Rattan, wicker and nibbi	5
5.2 Bamboo	6
6 Finish.....	6
7 Sampling	6
8 Performance tests	7
8.1 General	7
8.2 Inspection before testing	7
8.3 Determination of conformity.....	7
9 Labelling.....	7
9.1 General requirements.....	7
9.2 Detailed requirements	7
Annex A (normative) Test procedures	9
Annex B (informative) Treatment of bamboo, kufa and rattan poles	10

(This page was intentionally left blank)

Foreword

This CARICOM Regional Standard was developed as part of the CROSQ project entitled "*Promoting the competitiveness of small and medium-sized enterprises through regional standards*", funded by the Inter-American Development Bank.

Furniture made from indigenous materials other than wood and manufactured in the Caribbean is traded intra and extra regionally. This standard will benefit manufacturers by the harmonization of requirements for the manufacture of various types of furniture, suitable for both domestic and commercial use.

This standard was approved by the Thirty-first Meeting of the Council for Trade and Economic Development on 29 November - 3 December 2010.

In the preparation of this standard, assistance was derived from:

- a) Philippine Standard, PS No. 821-09-03:1976, Specifications for rattan and wicker furniture;
- b) CARICOM Regional Standard, CRS/DCS 55: 200X, Labelling requirements - General Principles;
- c) CARICOM Regional Standard, CRS/ DCS 20: 200X, Specification for wooden furniture;
- d) ASTM, F 1561-03, Standard performance requirements for plastic chairs for outdoor use;
- e) Jamaican Standard, JS 1: 1983, Specification for the labelling of commodities. Part 11: The labelling of furniture; and
- f) Jamaican Standard, JS 106: 1996 Minimum requirements for wooden, metal, plastic and upholstered accommodation furniture and craft intended for export and import.

1 Scope

This standard specifies the requirements for indigenous furniture, namely those made from bamboo, rattan, wicker, tibusiri and nibbi materials.

2 Normative references

The following referenced documents are indispensable for the application 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.

CARICOM Regional Standard, CRS 20: 2010, Specification for wooden furniture

CARICOM Regional Standard, CRS 55, Labelling of Goods – General Principles

3 Terms and definitions

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

3.1

bamboo

tropical grass having hollow stems composing the genera *Chusquea* and *Sinarubdibaria*

3.2

black or loose knot

knot that has been partially decayed forming a cavity and has a very dark appearance

3.3

blemish

dark spot or discoloration in construction materials caused by staining fungi or mineral stains

3.4

blistering

discolouration or scarring of the surface of the wood or lumber

3.5

blue stain

bluish discolouration of the sapwood and growth ring resulting from fungal infection

3.6

boxed heart

when the heart is enclosed within the four surfaces of a hewn or sawn timber through its entire length and reasonably well centred at both ends

3.7

break

separation of the fibres, which extends through a piece of the material from one surface to the other and is usually perpendicular or at right angle to the direction of the grain

3.8

burr

rough edge left on cut wood

3.9

caster

small wheel on a swivel, attached under a piece of furniture or other heavy object to make it easier to move

3.10

check

separation of the fibres along the pole forming a crack or fissure in the material, not extending through the piece from one surface to the other

3.11

exposed pith

cavity in the wood or board exposing the pith

3.12

indigenous furniture

furniture made from wood or other plant-derived materials native to the people of a country

3.13

kofa

parasitic vine, varying in diameter from 6 mm to over 25 mm that hangs from trees in tropical rain forests

NOTE It is usually thicker than nibbi and used to build the frames on which the weaving of the nibbi is done and as trimming for the edges of furniture.

3.14

knot

portion of branch embedded in the wood

3.15

knot hole

hole formed on a piece of wood as a result of a decayed knot

3.16

nibbi

parasitic vine, growing up to 7.5 m that hangs from trees in tropical rainforests

NOTE It is a much finer vine than the kofa. Nibbi is used for binding joints as well as for weaving that gives a wicker-like appearance to some of the pieces.

3.17

rattan flat core

flat-shaped material, with size ranging from 2 mm to 10 mm in width, processed from the core of a pole and used for weaving and binding

3.18

rattan peel or "rattan split"

flat-shaped material, stripped from the skin of a rattan pole, with size ranging from 2 mm to 10 mm or wider in width, usually for weaving and binding

3.19

rattan pole

long, tough and slender stem from the genera *Calamus* and *Daemonorops* of the family Palmae, used for making furniture

3.20

rattan round core or "wicker"

round-shaped material, with size ranging from 2 mm to 10 mm in diameter, processed from the core of the rattan pole, usually used for weaving

3.21

seasoned

reduction of initial moisture content of timber to the required moisture content

3.22

shake

separation of the fibres along the pole, caused by stress developed in the gathering and cutting, or by improper processing

3.23

sliver

splinter or strip torn off from a piece of wood or lumber

3.24

split

separation of the fibres along the grain forming a crack or fissure extending through the piece from one surface to another

3.25

splits

natural separation of the wood due to the tearing apart of the wood cells

3.26

tibisiri

straw extracted from the young shoot of the Ite palm species and fashioned into a chord-like material that is woven into backs of chairs and to tables

3.27

wane

defect on a piece of wood that lack square corners

3.28

wicker

round-shaped material, ranging from 2 mm to 10 mm in diameter, processed from the core of the rattan pole, usually used for weaving

4 Material requirements

4.1 General

The materials selected for rattan, wicker and nibbi furniture shall be characterized by lightness, flexibility, durability, smoothness and shall have no hair-like strands hanging out.

4.2 Rattan poles

4.2.1 The rattan used in the construction of furniture shall be of good grade; mature, clean, scraped and thoroughly seasoned.

4.2.2 Rattan poles shall be treated against fungi and insect infestations, and be free from mineral and fungal blemishes, scars, bruises and especially pinholes.

4.2.3 All poles shall be treated with pentachlorophenol or saline solution to safeguard against insect-borers.

4.3 Checks, shakes and breaks

Checks and shakes shall be permitted provided that they do not exist in close proximity to holes and grooves so as to affect the strength of the material. Breaks shall not be permitted.

4.4 Rattan core and peel

The rattan core and peel used for weaving and binding furniture shall be of good quality and shall be processed from good rattan poles. Rattan core or peel used shall be of uniform diameter or width.

4.5 Wood

All wooden materials used or incorporated into rattan furniture such as seat frames, doors, cabinet, shall:

- a) have a density of 480 kg/m² to 640 kg/m²;
- b) have between 5 and 20 growth rings per 20 mm measured at right angles to the ring system;
- c) be seasoned to a moisture content of 8 % to 15 %. Kiln drying and conditioning shall be effected in such a way that case hardening, honey-combing, bow, spring or twist does not occur;
- d) not have knots and knotholes on load-bearing structural timbers. Sound knots may occur elsewhere provided that they are free from signs of decay, sound across the face, at least as hard as the surrounding wood and do not exceed 20 mm or ¼ the width of the face on which they occur, whichever is the smaller. Dead knots are not acceptable;

NOTE Cluster or pin holes for decorative purposes may occur in non load-bearing components.

- e) be free from checks, splits and shakes; boxed heart, exposed pith; dead, black or loose knots; knot-holes and wane;
- f) be free from signs of decay, and fungal or insect attack; and

NOTE Timber affected by blue-stain may be used in non-show wood for non-structural components.

- g) be free from discolouration (sound bright).

5 Construction

5.1 Rattan, wicker and nibbi

5.1.1 All furniture complying with this standard shall be of good workmanship. All components used in construction shall be of a quality in accordance with good practices in the trade.

5.1.2 All finished items shall be uniform in quality, clean and free from any defects that may affect their appearance and or serviceability.

5.1.3 All external surfaces shall be free from sharp edges, slivers, burrs and other safety hazards.

5.1.4 Furniture shall remain in a stable and upright position when empty, with all drawers, doors and other movable parts fully extended and opened.

5.1.5 Joints for main parts and stress joints shall be snugly fitted and secured to adjoining parts by nails, screws or bolts and bound with rattan flat peel or core, or other binding materials glued on to the rattan, so as to withstand normal daily wear and tear.

5.1.6 All main parts and stress joints shall be of the concave-cut, fitted type or dowelled type of construction.

5.1.7 All joints of rattan rings used for the seats or for support purposes shall be the half-lap type nailed and glued together.

5.1.8 All wood joints shall be in accordance with requirements of CRS 20.

5.1.9 Where furniture rests on a base, it shall be screwed on to the base which shall be made of solid wood. If a swivel base is used, it shall move freely and shall not squeak.

5.2 Bamboo

Where applicable, the construction of bamboo furniture shall conform to the requirements above except that nails and metal bolts and screws shall not be used. Main parts and stress joints shall be secured by binding, wrapping or applying wooden or bamboo bolts and screws.

6 Finish

6.1 All rattan and wood surfaces shall be sanded smooth and all exposed edges and corners shall be eased. All holes, checks and shakes shall be filled and stained or toned to match the colour of rattan parts. Exposed nails, screws and bolts shall be countersunk with the holes filled with plastic wood fillers and or wooden or rattan plugs flushed and sanded smooth before finishing.

6.2 Any of the following finishes shall be used:

- a) lacquer or nitro-based clear finishes;
- b) cellulose acetate butyrate (CAB);
- c) acid catalyst clear lacquers;
- d) polyurethane;
- e) oil or wax; and or
- f) polyester

6.3 All materials used in the finish of furniture shall be of the nontoxic type.

6.4 All finished surfaces shall be of good workmanship.

6.5 There shall be no excessive stickiness or surface disfigurement of any type such as blistering, marking or change of colour when the furniture is subjected to dry heat.

7 Sampling

Up to three pieces of furniture shall be selected at random for testing in accordance with 8. Should one of these fail to pass the tests, outlined in Annex A, the inspector may select as many additional pieces of furniture as are necessary in accordance with internationally recognized sampling plans for furniture or similar products.

8 Performance tests

8.1 General

8.1.1 The main objective of these series of tests, outlined in Annex A, is to determine whether the furniture can reasonably withstand loads and related stresses of normal use.

8.1.2 In cases where the design of the furniture precludes the use of this particular procedure, alternative test procedures derived from the same principle shall be used.

8.1.3 Each sample shall be subjected to the series of tests specified in Annex A the tests being carried out in that sequence.

8.2 Inspection before testing

Immediately before testing, each sample shall be inspected and any apparent defects noted. A report on such defects shall accompany the report on the performance tests and these shall be taken into account in assessing whether the article has complied with the requirements of this standard.

8.3 Determination of conformity

8.3.1 Each sample tested shall fulfil the conditions of the test described in Annex A.

8.3.2 If during or after any of the tests, relative movement is apparent between the members of any joint and it is established that the joint is broken in such a way as to impair its serviceability, the furniture shall be deemed to have failed to pass the performance tests.

8.3.3 If failure of a joint is recorded, or if for any other reason the furniture selected for testing is deemed to have failed to pass the performance tests of this standard, the testing of that article shall be discontinued and no further sections of the test procedure shall be applied to it.

9 Labelling

9.1 General requirements

9.1 Labelling shall be in accordance with CRS 55, as well as 9.2 and 9.3.

9.2 All labels shall be prominently and conspicuously displayed. All required information shall be legible and in the official language(s) of the country in which it is sold.

9.3 All labels shall be securely affixed to the furniture by whatever method the distributor or retailer chooses. It shall be of such permanency as to remain on or attached to the product until the completion of sale to the consumer.

9.2 Detailed requirements

9.2.1 The label on furniture shall have the following:

- a) the common name or type of furniture;
- b) mark or code to distinguish the manufacturer;
- c) the country of origin;
- d) type of predominant material(s) which dictates the nature of the furniture, such as type of wood;
- e) for upholstered furniture, the type of fabric and material used for the frame and the filling;

f) type of finish; and

EXAMPLE Lacquer, varnish or paint

g) precautionary note for general usage and care.

EXAMPLE Do not scrape, scratch or scour; clean with soap and water only; protect from cosmetics and alcohol.

9.2.2 In addition to the requirements in 9.2.1, the number of pieces in a set should be identified and stated.

NOTE When labelling sets, only one item in the set needs to be labelled, implying that this item is a representative sample of the lot.

9.2.3 When an upholstered item is covered by a given material such as tapestry, velvet, cotton, leather, it is implied that the entire exposed surface is covered with the said material. If, however, any part of the exposed surface is not so covered, the type of the other material shall be clearly stated on the label.

Annex A **(normative)**

Test procedures

A.1 Level test (all items)

Casters or glides shall be removed. Items shall be placed on a flat surface plate. All legs shall simultaneously rest on the surface plate. Any evidence of rocking when light force is applied at any corner shall be cause for rejection.

A.2 Sand bag test (chairs and sofa frames)

A.2.1 A 29.5 kg sandbag, with a diameter of 30.48 cm is allowed to drop from a height of 106.68 cm onto a piece of furniture, at each of the following locations:

- a) directly over a leg;
- b) midway between the legs on the side frame members; and
- c) on front frame rail at midpoint.

A.2.2 The furniture should withstand six impacts.

A.3 Impact test

The chair shall be lifted at an angle of 12 ° diagonally across the plane of the feet (to ensure that one leg receives the initial impact) and dropped from a height of 91.44 cm above a concrete floor. The chair shall withstand 12 drops.

A.4 Diagonal load test

The chair shall be laid back in such a way that the front edge of the seat is directly above the feet or the rear legs. A vertical load of 68.04 kg shall be applied to the front edge of the seat 20 times for not less than 5 s each time.

A.5 Static load test

A static load of a 68.04 kg sand bag shall be applied vertically over a 30.48 cm diameter area in the centre of the deck and allowed to remain for 15 min. Upon removal of the load, there shall be no evidence of breakage or loosening or separation of frame joints.

NOTE Applies to chair frame with deck.

A.6 Static load test (Tables)

The height of the table shall be measured accurately. A static load of 45.36 kg shall be applied vertically over a 30.48 cm diameter area in the centre of the table top and allowed to remain for 30 min. Upon removal of the load, the height shall not have decreased by more than 0.31 cm and there shall be no evidence of breakage or separation of joints.

Annex B
(informative)

Treatment of bamboo, kufa and rattan poles

B.1 Tissue of rattan, wicker and nibbi may be infected by certain fungus that causes blemishes and discoloration. Soon after harvesting, materials should be treated with an approved anti-stain chemical solution.

B.2 Materials (poles) are dipped into pesticide solution in tank (or container) which is then covered to protect the materials from the rain.

B.3 The poles to be treated are hauled to the treating depot, scraped, then dipped for one to two minutes in the solution.

B.4 Clean and sanitary conditions are maintained in the treating depot. Rattan trimmings or scrapings or other debris should be disposed of appropriately. This waste should be burned to prevent the harbourage and propagation of the staining fungi.

B.5 Treated poles are air dried by end-racking. While being air dried, the poles should be protected from rain to prevent the removal of the anti-stain-chemical solution. When the poles are thoroughly dried, they are smoothed by sanding and subsequently subjected to an anti-stain-chemical treatment.

B.6 During the last treatment, an insecticide may be added to the anti-stain-chemical solution to protect the pole from both stain and insect attack. The poles are dried in a well-ventilated and sheltered storage place by the end-racking method for about a month, until the moisture content is below 20 %. The poles should be kept dry, especially when they are in transit.

B.7 All poles are treated with an approved pesticide or saline solution to safe-guard against insect borers.

End of document



CARICOM REGIONAL ORGANISATION FOR STANDARDS AND QUALITY

The CARICOM Regional Organisation for Standards and Quality (CROSQ) was created as an Inter-Governmental Organisation by the signing of an agreement among fourteen Member States of the Caribbean Community (CARICOM). CROSQ is the regional centre for promoting efficiency and competitive production in goods and services, through the process of standardization and the verification of quality. It is the successor to the Caribbean Common Market Standards Council (CCMSC), and supports the CARICOM mandate in the expansion of intra-regional and extra-regional trade in goods and services.

CROSQ is mandated to represent the interest of the region in international and hemispheric standards work, to promote the harmonization of metrology systems and standards, and to increase the pace of development of regional standards for the sustainable production of goods and services in the CARICOM Single Market and Economy (CSME), and the enhancement of social and economic development.

CROSQ VISION:

The premier CARICOM organisation for the development and promotion of an Internationally Recognised Regional Quality Infrastructure; and for international and regional harmonized CARICOM Metrology, Standards, Inspection, Testing and Quality Infrastructure

CROSQ MISSION:

The promotion and development of standards and standards related activities to facilitate international competitiveness and the sustainable production of goods and services within the CARICOM Single Market and Economy (CSME) for the enhancement of social and economic development



© CROSQ 2010 – All rights reserved

ISBN 978-976-8234-24-7
ICS 97.140