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मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

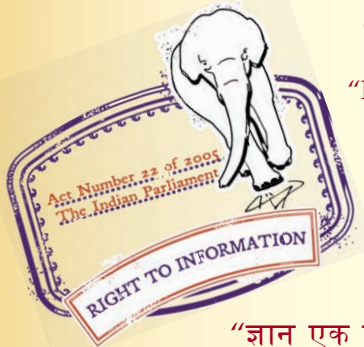
“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 15456 (2004): Grading rules for unsplit canes [CED 9: Timber and Timber Stores]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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भारतीय मानक  
अविशाखित बेंत के ग्रेड-निर्धारण नियम

*Indian Standard*  
GRADING RULES FOR UNSPLIT CANES

ICS 79.020

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**BUREAU OF INDIAN STANDARDS**  
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NEW DELHI 110002

## FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Timber and Timber Stores Sectional Committee had been approved by the Civil Engineering Division Council.

Rattan grading rules have not been precisely formulated in the rattan producing countries of the Asia Pacific and African regions with the exceptions of Indonesia and Philippines, where some anomalies are still existing. Some countries like Malaysia and Thailand have adopted informal grading procedures. The possibility of adopting standardized rules in Indian conditions, based on the survey of existing rules of Asian region, has been considered by the Bureau of Indian Standards. Consequently, this standard has been framed for the purpose of developing domestic trade by laying down definite specifications on split rattans for the benefit of buyers and sellers in both private sectors and Government departments.

While formulating these rules, basis has been derived from the document: INBAR Working Paper No. 6, published by the International Network for Bamboo and Rattan in 1996, based on the survey of existing rules and proposal for standardization.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

# Indian Standard

## GRADING RULES FOR UNSPLIT CANES

### 1 SCOPE

This standard covers the requirements for trading small diameter canes and large diameter canes.

### 2 REFERENCES

The standards listed below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreement based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards given below:

<i>IS No.</i>	<i>Title</i>
707:1976	Glossary of terms applicable to timber technology and utilization ( <i>second revision</i> )
15458:2004	Classification of Indian canes and their zonal distribution

### 3 TERMINOLOGY

For the purpose of this standard, the definitions given in IS 707 and IS 15458 shall apply.

### 4 GENERAL REQUIREMENTS

#### 4.1 Small Diameter Canes

- a) Canes shall have authentic botanical identity when specified by the buyer.
- b) Canes shall be mature and seasoned.
- c) Canes shall not break on bending or in any other processing stage.
- d) Canes shall be either oil-cured or chemically treated with anti-staining fungicide, bleached or fumigated as specified by the buyer.
- e) Plugging or covering of visible defects shall not be permitted in any form.

#### 4.2 Large Diameter Canes

- a) Canes shall have authentic identity when the species are specified by the buyer.
- b) Canes shall be straight, round, mature and seasoned.
- c) Canes shall not break or develop checks and other defects in bending or in any other processing stage.

- d) Canes shall be either oil-cured or chemically treated with anti-staining fungicide, bleached or fumigated as specified by the buyer.
- e) Plugging or covering of visible defects shall not be permitted in any form.

### 5 DIMENSIONS

#### 5.1 Small Diameter Canes

- a) *Length* — Length of canes shall be as specified by the buyer. It shall be taken as the shortest distance in metres from one extreme end to the other. Length shall be rounded off to the nearest lower 0.05 m.
- b) *Diameter* — The diameter of canes shall be below 18 mm. Diameter shall be determined in mid-internode of the small end. Following diameter classes shall be adopted for trading: 2-6 mm, > 6-11 mm and > 11-17mm.
- c) *Taper* — The maximum taper shall not exceed 3 mm for a cane length of 4.5 m. Taper of the cane shall be determined by the difference between diameters measured in two extreme ends.
- d) *Internodal Length* — The minimum length shall be 50 mm. Internodal length shall be taken as the shortest distance from one node to another and expressed, in mm.

#### 5.2 Large Diameter Canes

- a) *Length* — Length shall be taken as the shortest distance in metres from one extreme end to the other. Length shall be rounded off to the nearest lower 0.05 m.
- b) *Diameter* — The minimum diameter shall be 18 mm. The standard diameter shall be expressed in mm with a tolerance of + 3mm for scraping. The diameter shall be determined in the mid-internode of small end. Following diameter classes shall be adopted for trading: > 40 mm, 35-40 mm, 30-35 mm, 25-30 mm, 20-25 mm, 18-20 mm.
- c) *Taper* — The maximum taper shall not exceed 5 mm for a length of 3.5 m. Taper of the cane shall be determined by the difference between diameters measured in two extreme ends.
- d) *Internodal Length* — The minimum length shall be 50 mm. It shall be taken as the shortest

distance from one node to another and expressed, in mm.

### 5.3 Defects

#### 5.3.1 Prohibited Defects

Defects such as decay, worm holes, breakage and shakes shall not be permitted.

#### 5.3.2 Permissible Defects

Defects such as blemishes, scars, pin holes, checks and bruises to the extent specified for a specific grade, shall be permissible for small and large diameter canes.

## 6 APPEARANCE

Canes shall also be inspected for uniform colour and brightness or lustre.

## 7 GRADING

Based on the quality consideration in terms of appearance and the extent of permissible defects, following grades shall be recognized.

Small Diameter Canes	
Grade	Requirement
Super Quality	Entirely ( 100 percent of standard length ) free from defects, ivory white, cream or yellowish, uniformly bright or lustrous, easily pliable, internodal length >100 mm
I	Extent of permissible defects shall not exceed 15 percent of standard length, ivory white, cream or yellowish, easily pliable, internodal length >100 mm
II	Extent of permissible defects shall not exceed 50 percent of standard length, ivory white, cream or brownish internodal length >100 mm
III	Extent of permissible defects shall not exceed 50 percent of standard length, whitish yellowish, brown or dark brown, internodal length > 50 mm

## Large Diameter Canes

Grade	Requirement
Super Quality	Entirely ( 100 percent of specified length ) free from defects, ivory white, cream or yellowish, uniformly bright or lustrous surface, internodal length >100 mm
I	Extent of permissible defects shall not exceed 15 percent of specified length, ivory white, cream or yellowish, uniformly bright surfaces, internodal length >100 mm
II	Extent of permissible defects shall not exceed 50 percent of specified length, ivory white, cream or brownish, internodal length >100 mm
III	Extent of permissible defects shall not exceed 75 percent of specified length, whitish, yellowish, brown and dark brown, internodal length > 50 mm

## 8 INSPECTION PROCEDURE

- Unsplit canes shall be inspected and classified individually.
- All small-diameter canes shall be chemically treated with anti-staining fungicides upon inspection.
- A minimum of 10 percent of the lot shall be inspected at random to determine size and uniformity.
- All large-diameter canes shall be single-scraped and chemically treated with anti-staining fungicide.

## 9 PACKAGING AND LABELLING

Canes shall be sorted, bundled and legibly marked according to diameter/length grade and trade-name. Each bundle of canes shall be labelled with the following information:

- Trade-name/vernacular name;
- Botanical name;
- Diameter/length;
- Grade;
- Origin or Source;
- Number of canes per bundle;
- Name and address of supplier, and
- Date of supply.

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#### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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