

# ABACA FIBER - GRADING AND CLASSIFICATION - HAND-STRIPPED AND SPINDLE/MACHINE- STRIPPED

PNS/BAFS 180:2016

## ILLUSTRATIVE GUIDE



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Abaca Fiber - Grading and Classification -  
Hand-stripped and Spindle/Machine-stripped  
(PNS/BAFS 180:2016)

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# Reader's Guide

This Illustrative Guide (IG) complements the Philippine National Standard (PNS) - Grading and Classification - Hand-stripped and Spindle/Machine-stripped (PNS/BAFS 180:2016). The PNS outlines the recommended classification and grades for hand-stripped and spindle/machine-stripped abaca fibers.

This IG is specifically designed to aid readers in understanding the provisions of the PNS. It is intended for regulatory personnel, industry professionals, or individuals interested in the production of abaca fibers. The creation of IG does not purposely revise nor amend the content of the PNS; thus, it provides clarity, insights, and inspiration for the target industry through the addition of images and/or information fitted in the current situation.

The content of this IG mirrors the section numbers of the PNS for easy cross-referencing. Additional photographs/images or illustrations are included to assist the user in understanding the provisions of this Standard. The images are placed under the provisions to distinguish them from the PNS provisions. Note that this IG presents the minimum requirements as stated in the PNS and does not include additional regulatory requirements beyond the scope of the PNS.

For more updates and detailed information about the PNS and other knowledge products (KPs), readers are encouraged to visit the DA-BAFS website at [www.bafs.da.gov.ph](http://www.bafs.da.gov.ph) or follow the DA-BAFS Facebook page at [www.facebook.com/da.bafs](https://www.facebook.com/da.bafs).

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# Director's Message



I am pleased to present the Illustrative Guide for the Philippine National Standard (PNS) Abaca fiber - Grading and Classification - Handstripped and Spindle/Machine stripped (PNS/BAFS 180:2016).

In line with our commitment to becoming more customer-oriented, this Illustrative Guide is specifically designed to assist you in better understanding the PNS and implement its provisions more clearly.

Following the Focus Group Discussions (FGD) with regulatory agencies, we recognized the need to enhance and ensure a consistent understanding of the PNS. Especially on the technical terms, which can be challenging to interpret, and have variations in understanding the minimum requirements in grading and classification of handstripped and spindle/machine stripped abaca fiber among readers to have made uniform implementation challenging. Therefore, we have created this Illustrative Guide to simplify the use and enhance understanding of the PNS.

The TWG has consistently provided support and collaboration, offering significant recommendations that have led to the development of this Illustrative Guide. Our aim is to make it practical and meaningful, serving as a helpful resource for all regulatory personnel and extension workers in their activities. Our ultimate goal is to transform the PNS document into an empowering tool for all relevant stakeholders. By addressing challenges in implementing our PNS, we hope to create an environment where the PNS is understood, embraced, and effectively adopted.

I extend my sincere gratitude to the TWG for their invaluable contributions to the development of this Illustrative Guide. Together, we strive for a future where the PNS is uniformly adopted and effectively implemented.

**MARY GRACE R. MANDIGMA, PFT**  
Officer-in-Charge, Director

# Table of Contents

	Foreword .....	1
<b>Section 1</b>	Scope .....	3
<b>Section 2</b>	References .....	5
<b>Section 3</b>	Definitions .....	7
<b>Section 4</b>	Minimum Requirements .....	23
<b>Section 5</b>	Grading .....	25
<b>Section 6</b>	Tolerances .....	65
<b>Section 7</b>	Sampling .....	67
<b>Section 8</b>	Baling .....	69
<b>Section 9</b>	Labelling .....	75
	Annexes .....	83
	References .....	89
	Technical Working Group .....	93

# Foreword

The DA-BAFS Technical Services Division (TSD) generated a Priority List for PNS Promotion for 2024 based on established prioritization criteria, which included the PNS Abaca Fiber - Grading and Classification - Hand-stripped and Spindle/Machine - Stripped (PNS/BAFS 180/2016). This Standard establishes the requirements for classifying and grading commercial grades of abaca fiber extracted from the leaf sheaths of the abaca plant (*Musa textilis* Nee.).

To assist regulatory officers and fiber inspectors of the PhilFIDA, and other relevant stakeholders, an IG was developed to provide supplementary material to the standard, further clarify the text of the standard, and provide more specific details on the grading and classification system through visual representations. The TWG, created specifically for the purpose, assisted in completing the IG in 2024, given the expressed urgency for this supplementary material to facilitate trade.

To create this IG, a series of field data gathering (FDG) activities were conducted in Salay and Sibantang in Misamis Oriental, Baloi in Lanao del Norte, Iligan City, Tabaco City in Albay and Casiguran in Sorsogon. The photographs and other relevant information gathered during these FDG activities were incorporated into the supplementary material. The TWG discussed and finalized the draft through a series of meetings and writeshops over a period of one year (March 2024 to March 2025). Moreover, to validate the content of the IG, pre-testing was conducted to priority audience - PhilFIDA - comprising 15 participants who are mainly involved in inspecting and abaca fibers.

The IG serves as a reference material and practical guide for regulatory personnel and fiber inspectors and other interested stakeholders in navigating the challenges of grading and classifying abaca fiber.

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# Section 1

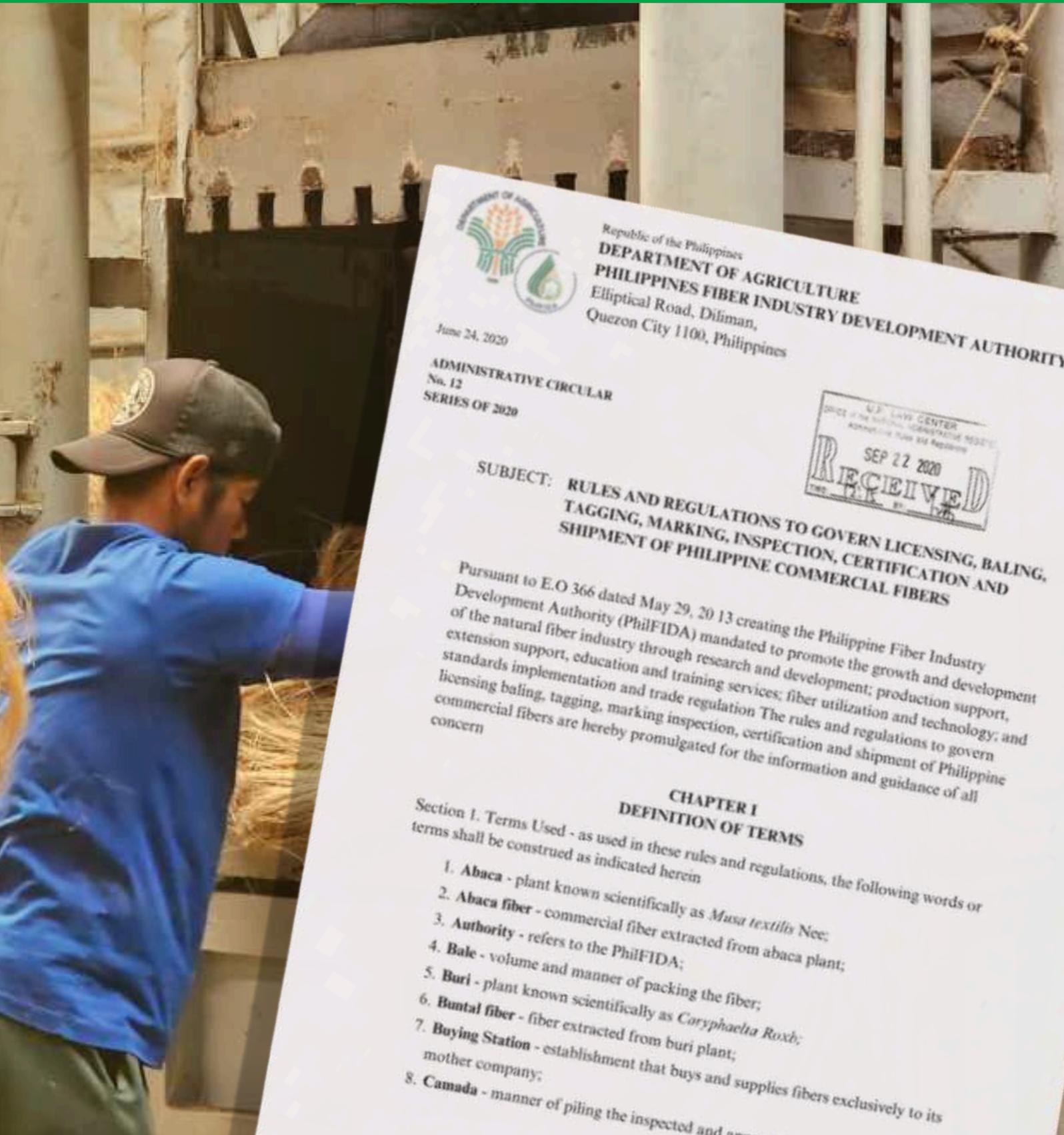
## Scope



## 1 Scope

This Standard specifies requirements and establishes a system of grading and classifying of commercial grades hand-stripped and spindle/machine - stripped abaca fiber.

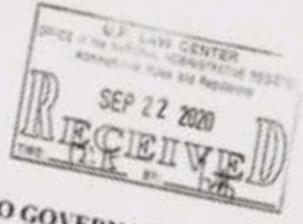
## References



Republic of the Philippines  
**DEPARTMENT OF AGRICULTURE**  
**PHILIPPINES FIBER INDUSTRY DEVELOPMENT AUTHORITY**  
Elliptical Road, Diliman,  
Quezon City 1100, Philippines

June 24, 2020

**ADMINISTRATIVE CIRCULAR**  
No. 12  
SERIES OF 2020



**SUBJECT: RULES AND REGULATIONS TO GOVERN LICENSING, BALING, TAGGING, MARKING, INSPECTION, CERTIFICATION AND SHIPMENT OF PHILIPPINE COMMERCIAL FIBERS**

Pursuant to E.O 366 dated May 29, 2013 creating the Philippine Fiber Industry Development Authority (PhilFIDA) mandated to promote the growth and development of the natural fiber industry through research and development; production support, extension support, education and training services; fiber utilization and technology; and standards implementation and trade regulation The rules and regulations to govern licensing, baling, tagging, marking inspection, certification and shipment of Philippine commercial fibers are hereby promulgated for the information and guidance of all concern

### **CHAPTER I** **DEFINITION OF TERMS**

Section I. Terms Used - as used in these rules and regulations, the following words or terms shall be construed as indicated herein

1. **Abaca** - plant known scientifically as *Musa textilis* Nees;
2. **Abaca fiber** - commercial fiber extracted from abaca plant;
3. **Authority** - refers to the PhilFIDA;
4. **Bale** - volume and manner of packing the fiber;
5. **Buri** - plant known scientifically as *Coryphaea Roxb.*;
6. **Buntal fiber** - fiber extracted from buri plant;
7. **Buying Station** - establishment that buys and supplies fibers exclusively to its mother company;
8. **Camada** - manner of piling the inspected and

## 2 References

The titles of the standards publications referred to in this standard is listed on the inside back cover.

*Pursuant to E.O 366 dated May 29, 2013 creating Philippine Fiber Industry Development Authority (PhilFIDA), the Administrative Circular No. 12 series of 2020 also known as "Rules and Regulations to Govern Licensing and Shipment of Philippine Commercial Fibers is used as reference in this Illustrative Guide.*

Definitions



### 3.1 abaca

plant scientifically known as *Musa textilis* Nee.



### 3.2 abaca fiber

fiber extracted from the abaca plant scientifically known as *Musa textilis* Nee.

#### 3.2.1 hand-stripped

fiber extracted through the use of manually operated stripping apparatus.



**3.2.2 spindle/machine-stripped**

fiber extracted through the use of semi-mechanized apparatus aided by an engine



Process of extracting fiber using spindle machine



Fiber extracted using spindle machine

Other type of hand stripping machine:



Source: PhilFIDA, n.d

Stationary stripping machine

### 3.3 color

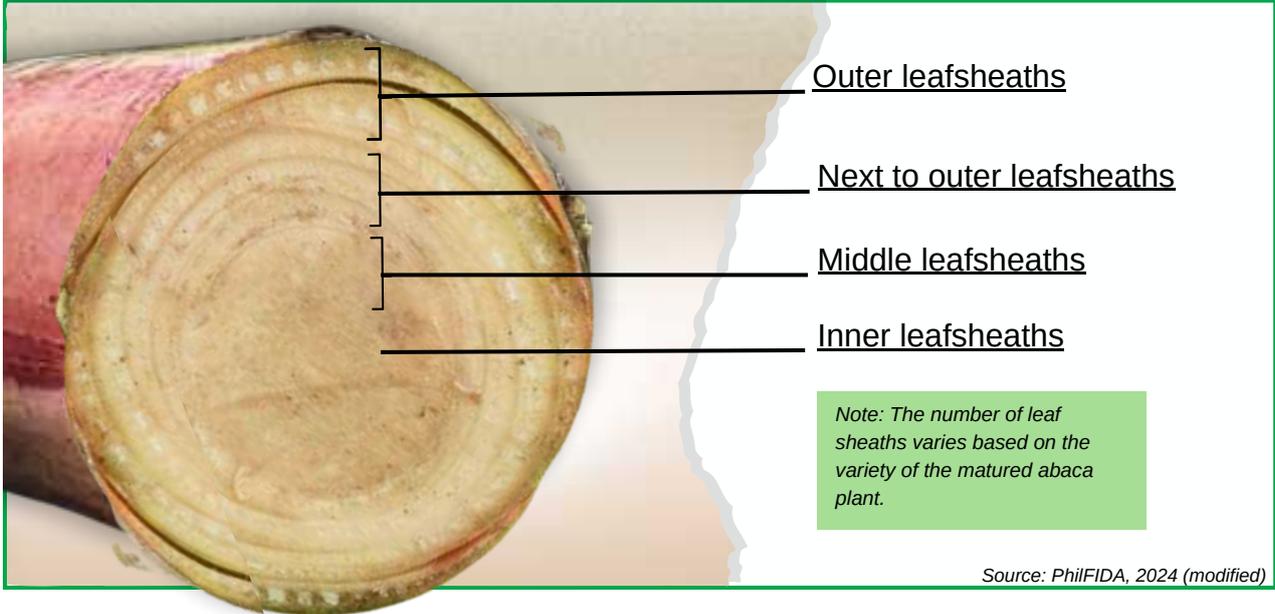
influenced by the layer of leaf sheaths or the variety from which the fiber is extracted, extent of stripping, oxidation, care taken in drying the fiber, and attack of micro organisms on the fiber as a result of poor postharvest management.



Source: PhilFIDA, 2024

Use of leaf sheath color chart to identify the appropriate color

Cross subsection of abaca stalk



Leaf sheaths of abaca

**Table 1.** Parameters of abaca sheaths for handstripped

Classification	Grades	Fiber strand size (mm)	Stripping knife serration (inch)
Excellent	<b>EF, S2, S3</b>	0.2 - 0.5	0
Good	<b>I, G, H</b>	0.51 - 0.99	24
Fair	<b>M1, JK</b>	1.0 - 1.5	18

Source: PhilFIDA, n.d (modified)

**3.4 grade**

shall refer to the fiber quality as designated by an alphanumeric code generally described as normal, residual and wide strips fiber.

**3.4.1 normal grade**

fibers with tensile strength ranging from 35 to 55 kgf/gm, length not less than 60 cm, and not discolored, soiled or stained.



### 3.4.2 residual grade

fiber with < 35 kgf/gm tensile strength, less than 60 cm in length, soiled, stained, discolored, or excessively stripy



**3.4.3 wide strips**

abaca fiber of very irregular cleaning, too stripy and woody to fit in any of the normal and residual grades



*Note: Fiber strand sizes between 1.51 mm and 2.00 mm are classified as wide strips.*



**Wide strip**

### 3.5 Grading/Baling Establishments or GBE

firm engaged in buying, grading/baling and selling commercial fibers for domestic and/or foreign consumption fully equipped with the required equipment, facilities, and manpower.



Source: PhilFIDA, 2024

Note: The images below showcase sample illustrations of the facilities within the GBE. Please note that fibers are not extracted using a decorticating machine.



Source: PhilFIDA, 2024



Source: PhilFIDA, 2024



Grading/Baling Establishment (GBE)

### 3.6 length

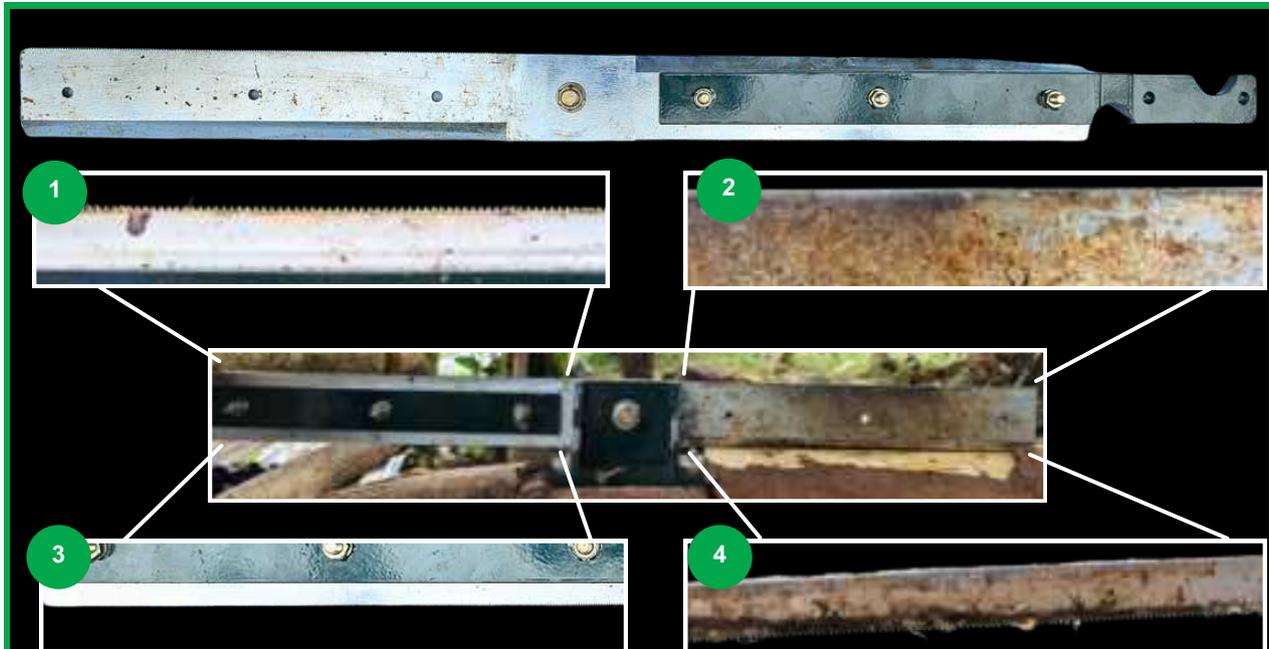
attribute of abaca fiber that varies according to the growth and development of the plant.

### 3.7 stripping

process of extracting fiber from the outer layer of the leaf sheath that contains the primary fibers (aka tuxy) using a knife either in a hand stripping or spindle/machine stripping apparatus. Knives may or may not have serrations. Serrations shall be of uniform width and depth. The amount of tension applied by the knife on the block is also uniform.



Process of extracting fiber by hand-stripping



Note:

- For 'Excellent Cleaning', it is recommended to use blades with 0 serration, such as in (2) and (3).
- For 'Fair Cleaning', a blade with 18 serrations per inch is used, such as in (4).
- For 'Good Cleaning', a blade with 24 serrations per inch is used, such as in (1).

Hand-stripping knife

**3.7.1 excellent stripped fiber**

abaca fiber when very little or no pulp at all is attached to the stripped abaca. The texture of fiber is generally soft, and the size ranges from 0.2 mm to 0.5 mm.



**3.7.2 fair stripped fiber**

stripped fibers with the diameter ranging from 1.00 to 1.50mm.



**3.7.3 good stripped fiber**

abaca fiber when filaments are sticking together but the whole size should be in the range of 0.51 mm to 0.99 mm.



Note:

In measuring the abaca fiber strand, the inspector uses the abaca fiber size scale.



Abaca fiber scale

### 3.8 tensile strength

basic quality for all the normal grades, the fiber which must possess the average strength considered normal for the grade in which it is included and measurable by a device called tensile strength tester

### 3.9 texture

attribute of abaca fiber influenced by the size of the fiber strand and categorized as soft, medium soft, and medium.

### 3.10 tuxy

process of separating the outer layer from the inner layer of the leafsheath. The outer layer contains the primary fibers while the inner layer contains the secondary fibers and pulpy material.



Tuxying knife

Farmers uses knife called "Tuxying knife" to separate the outer layer from the inner layer of the leaf sheath.

Source: PhilFIDA, 2024

Tuxying

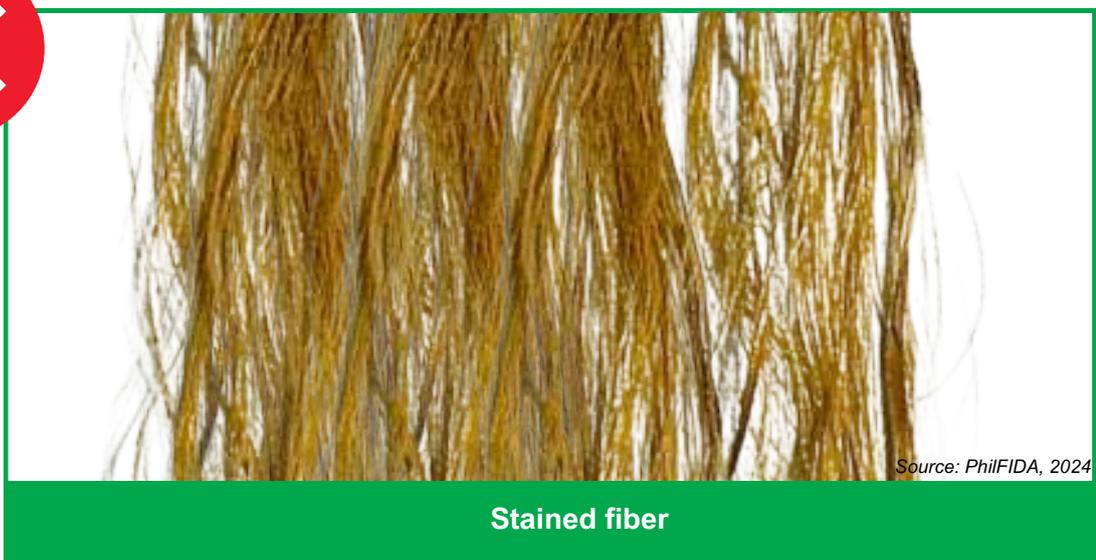
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# Minimum Requirements



In all normal grades subject to the special provisions for each grade and the tolerances allowed, hand-stripped and spindle/machine-stripped abaca fiber shall meet the following requirements:

- 4.1 The tensile strength of abaca fiber ranges from 35 to 55 kilogram force per gram meter (kgf/g.m).
- 4.2 The minimum length shall not be less than 60 centimeters.
- 4.3 The abaca fiber must be of uniform color according to the grade.
- 4.4 The abaca fiber must be of the same kind of stripping
- 4.5 The stripped abaca fiber must not be soiled, stained or discolored and must be free from foreign matters.



Grading



Hand-stripped and spindle/machine-stripped abaca fiber shall be classified into various grades according to where it is produced from, fiber strand size, color, stripping process and texture.

Table 1. Normal grades of hand and spindle/machine stripped abaca fiber

Grade		Description				
Name	Alpha-numeric code	Extracted from	Fiber strand size (mm)	Color	Stripping	Texture
Mid current	EF	Inner leaf sheath	0.20-0.50	Light ivory to a hue of very light brown to very light ochre Frequently intermixed with ivory white	Excellent	Soft
	S-EF	Inner leaf sheath	0.20-0.50	Light ivory or pale brown to a hue of ivory-white Frequently intermixed with ivory white	Excellent	Soft
Streaky Two	S2	Next to the outer leaf sheath	0.20-0.50	Ivory white, slightly tinged with very light brown to red or purple streak	Excellent	Soft
	S-S2	Next to the outer leaf sheath	0.20-0.50	Light ivory to very pale brown with very red or very light purple streaks	Excellent	Soft

(Continuation)

Grade		Description				
Name	Alpha-numeric code	Extracted from	Fiber strand size (mm)	Color	Stripping	Texture
Streaky Three	S3	Outer leaf sheath exposed to the sun	0.20-0.50	Predominant color – light to dark red or purple or a shade of dull to dark brown	Excellent	Soft
	S-S3	Outer leaf sheath exposed to the sun	0.20-0.50	Light brown to dark red or light purple with occasional streak of very light green	Excellent	Soft
Current	I	Inner and middle leaf sheath	0.51 to 0.99	Very light brown to light brown	Good	Medium soft
	S-I	Inner and middle leaf sheath	0.51 to 0.99	Light to very light brown	Good	Medium soft

(Continuation)

Grade		Description				
Name	Alpha-numeric code	Extracted from	Fiber strand size (mm)	Color	Stripping	Texture
Soft seconds	G	Next to the outer leaf sheath or similar leaf sheath source where S2 is obtained	0.51 to 0.99	Dingy white, light green and dull brown	Good	Medium soft
	S-G	Same leaf sheath that produces grade S-S2	0.51 to 0.99	Light brown with occasional streaks of very light green	Good	Medium soft
Soft brown	H	Outer leaf sheath	0.51 to 0.99	Dark brown	Good	
	S-H	Brown to dark brown Intermixed with substantial portion of fiber with lighter colors In some, color approaches black	0.51 to 0.99	Light to very light brown	Good	

(Continuation)

Grade		Description				
Name	Alpha-numeric code	Extracted from	Fiber strand size (mm)	Color	Stripping	Texture
Seconds	JK	Inner, middle and next to outer leaf sheath	1.00 - 1.50	Dull brown to dingy light brown or dingy light yellow, frequently streaked with light green	Fair	
	S-JK	Inner, middle and next to the outer leaf sheath	1.00 - 1.50	Light dull brown to dingy light brown or dingy light yellow with occasional streaks light green	Fair	
Medium brown	M1	Outer leaf sheath	1.00 - 1.50	Dark brown to almost black	Fair	
	S-M1	Same leafsheath from which S-H is obtained	1.00 - 1.50	Brown or nearly black	Fair	

*NOTE: For the spindle/machine stripped abaca fiber, it is designated with an 'S' separated by a dash before the alphanumeric code.*

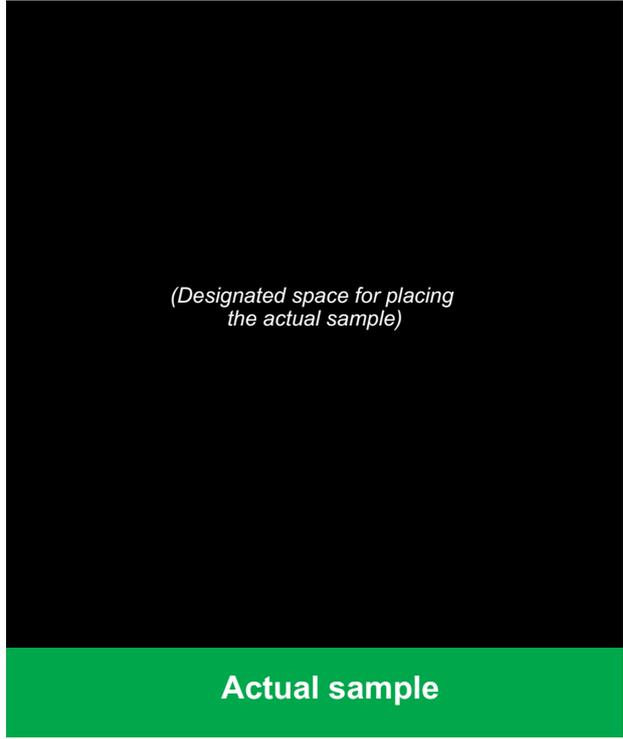
**Mid-current  
EF**



Source: PhilFIDA, 2024

Source: PhilFIDA, 2024

Extracted from	Fiber strand size mm
Inner leafsheath	0.20 - 0.50
Color	
Light ivory to a hue of very light brown to very light ochre. Frequently intermixed with ivory white	
Stripping	Texture
Excellent	Soft



(Designated space for placing the actual sample)

**Actual sample**

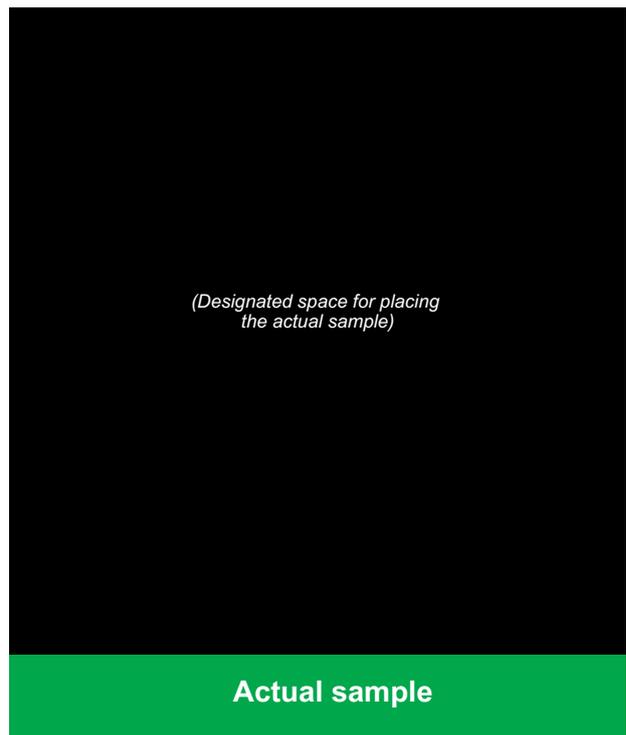
**Mid-current  
S-EF**



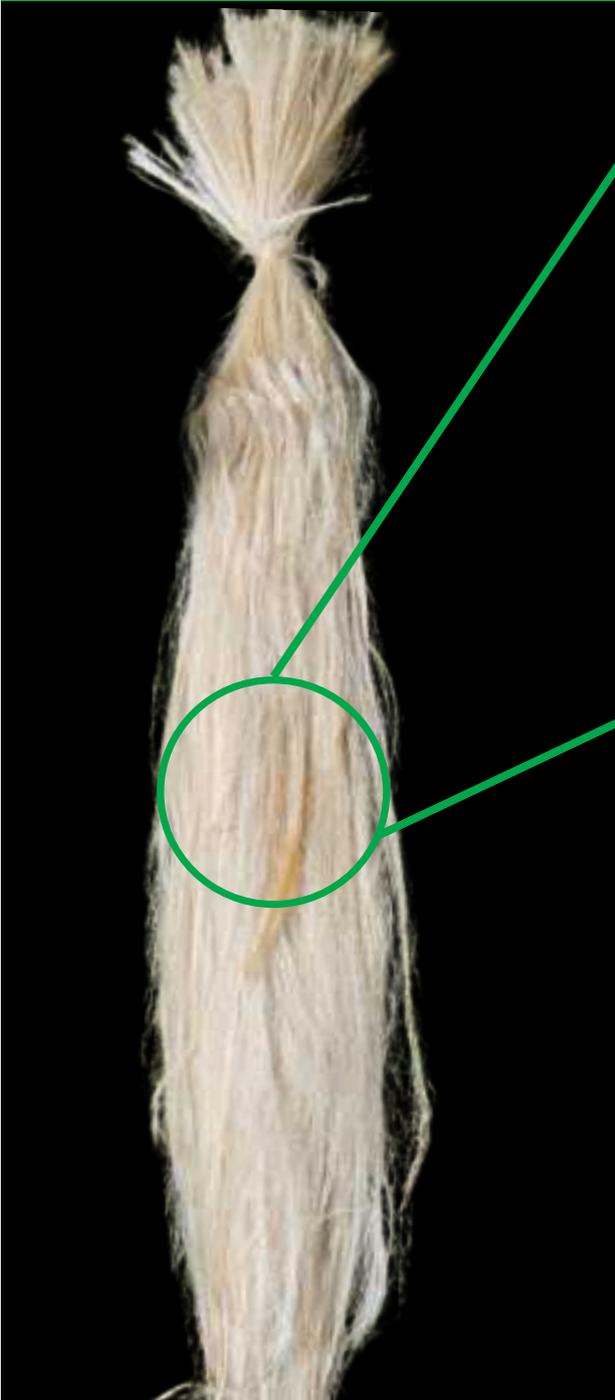
Source: PhilFIDA, 2024

Source: PhilFIDA, 2025

<b>Extracted from</b>	<b>Fiber strand size mm</b>
Inner leafsheath	0.20 - 0.50
<b>Color</b>	
Light ivory or pale brown to a hue of ivory-white Frequently intermixed with ivory white	
<b>Stripping</b>	<b>Texture</b>
Excellent	Soft

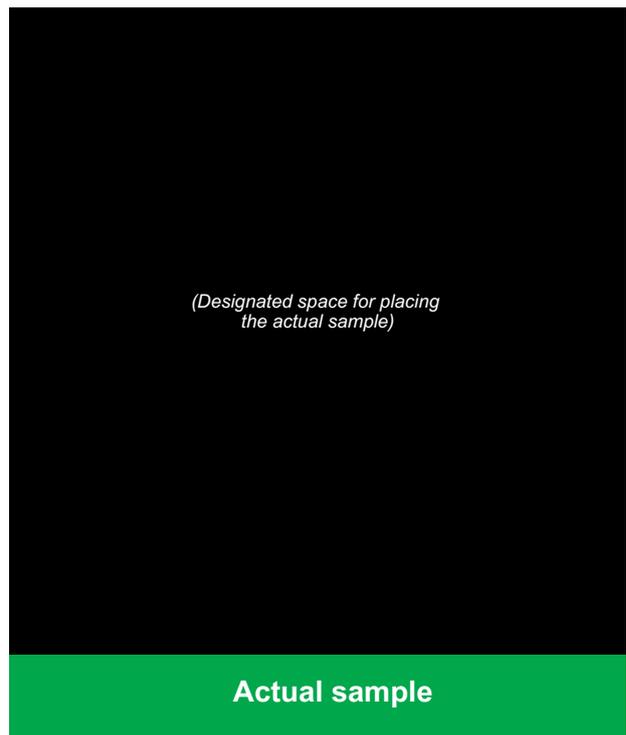


**Streaky two  
S2**

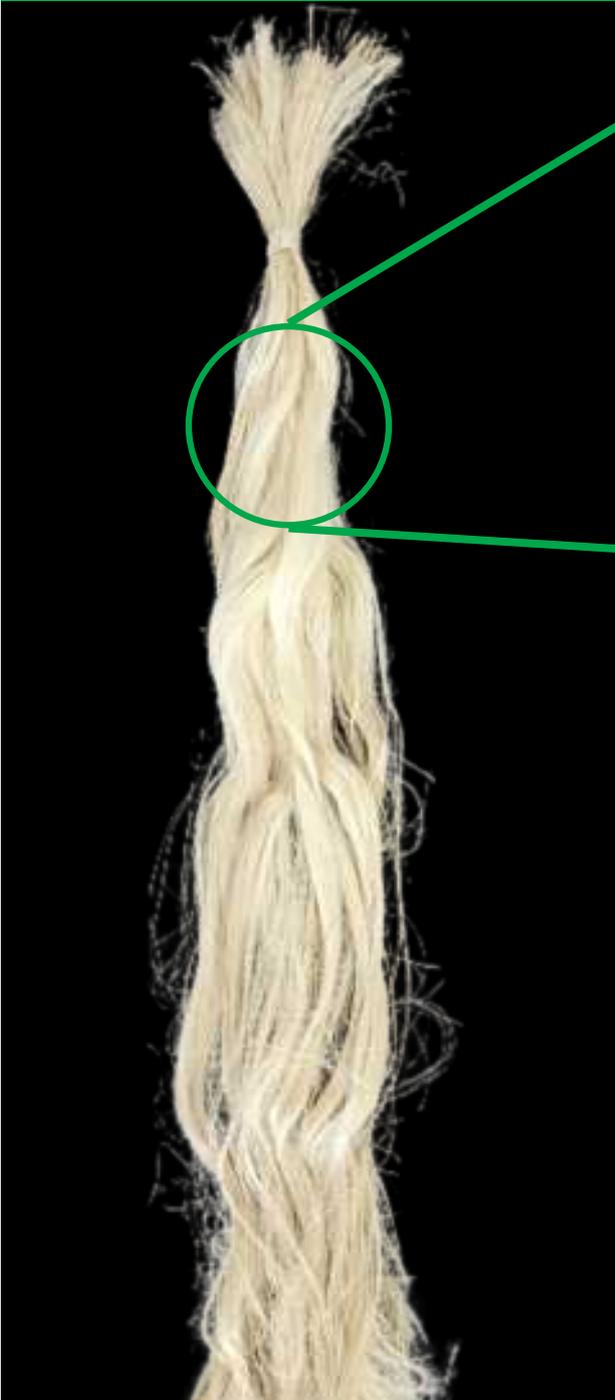


Source: PhilFIDA, 2024

Extracted from	Fiber strand size mm
Next to the outer leafsheath	0.20 - 0.50
Color	
Ivory white, slightly tinged with very light brown to red or purple streak	
Stripping	Texture
Excellent	Soft



**Streaky two  
S-S2**



Source: PhilFIDA, 2024

Extracted from	Fiber strand size mm
Next to the outer leafsheath	0.20 - 0.50
Color	
Light ivory to very pale brown with very red or very light purple streaks	
Stripping	Texture
Excellent	Soft

(Designated space for placing the actual sample)

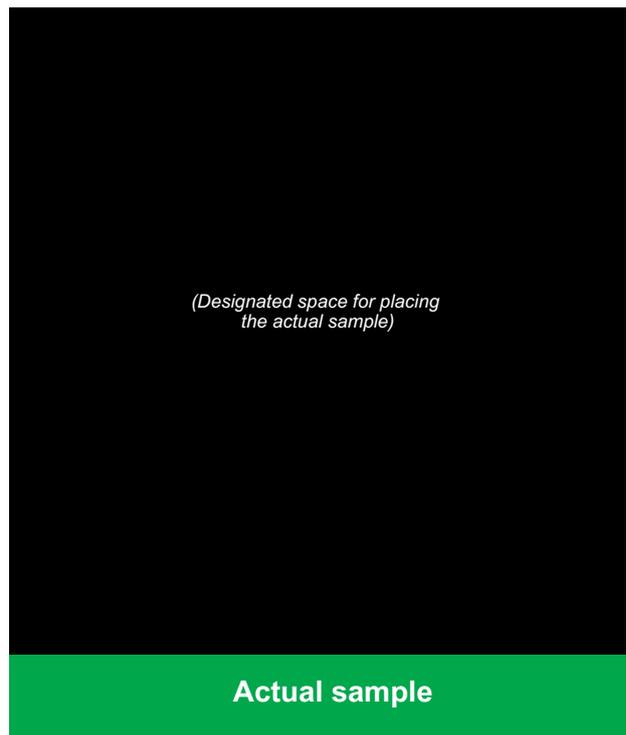
**Actual sample**

**Streaky three  
S3**



Source: PhilFIDA, 2024

Extracted from	Fiber strand size mm
Outer leafsheath exposed to the sun	0.20 - 0.50
Color	
Predominant color – light to dark red or purple or a shade of dull to dark brown	
Stripping	Texture
Excellent	Soft



**Streaky three  
S-S3**



Source: PhilFIDA, 2024

Extracted from	Fiber strand size mm
Outer leafsheath exposed to the sun	0.20 - 0.50
Color	
Light brown to dark red or light purple with occasional streak of very light green	
Stripping	Texture
Excellent	Soft

(Designated space for placing the actual sample)

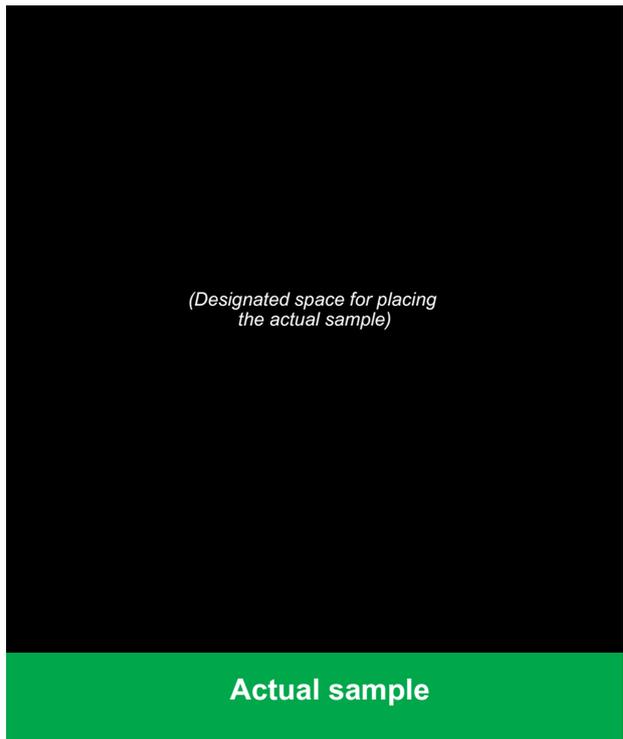
**Actual sample**

**Current  
I**



Source: PhilFIDA, 2024

Extracted from	Fiber strand size mm
Inner and middle leafsheath	0.51 - 0.99
Color	
Very light brown to light brown	
Stripping	Texture
Good	Medium soft



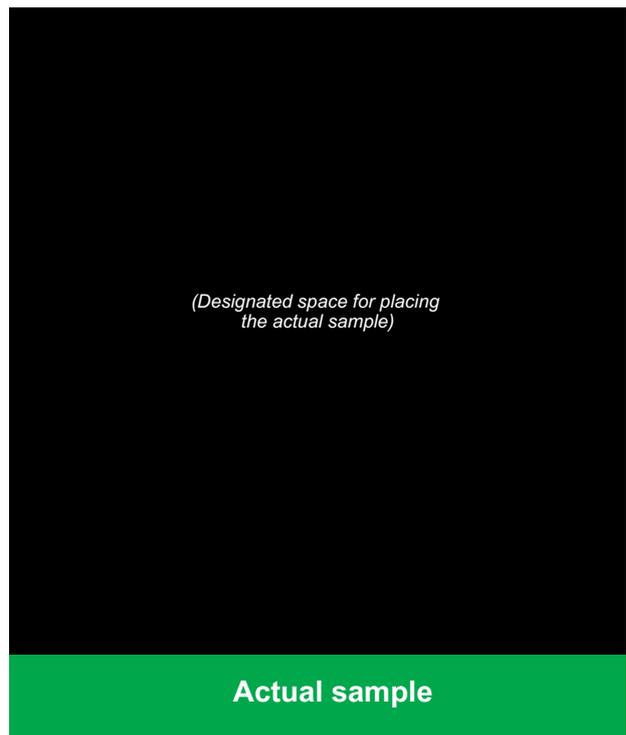
**Current  
S-I**



Source: PhilFIDA, 2024

Source: PhilFIDA, 2025

Extracted from	Fiber strand size mm
Inner and middle leafsheath	0.51 - 0.99
Color	
Light brown to light brown	
Stripping	Texture
Good	Medium soft

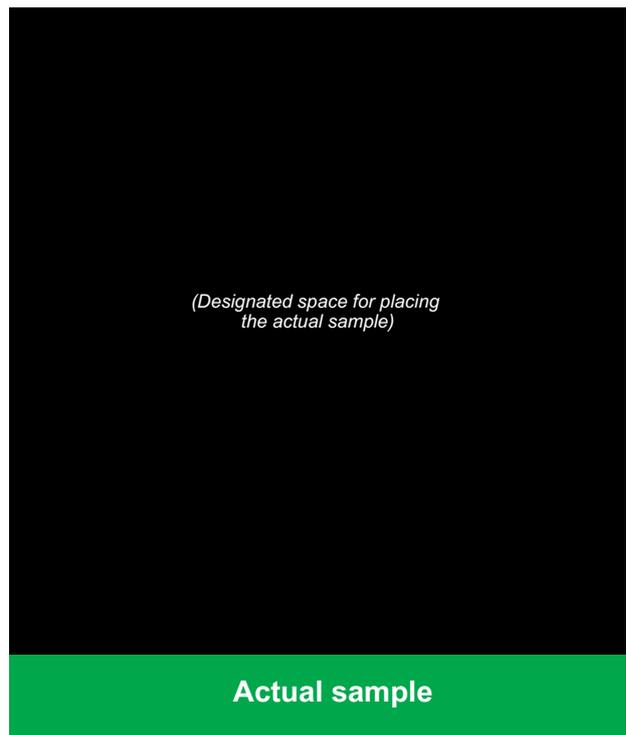


**Soft seconds  
G**



Source: PhilFIDA, 2024

Extracted from	Fiber strand size mm
Next to the outer leafsheath or similar leafsheath source where S2 is obtained	0.51 - 0.99
Color	
Dingy white, light green and dull brown	
Stripping	Texture
Good	Medium soft



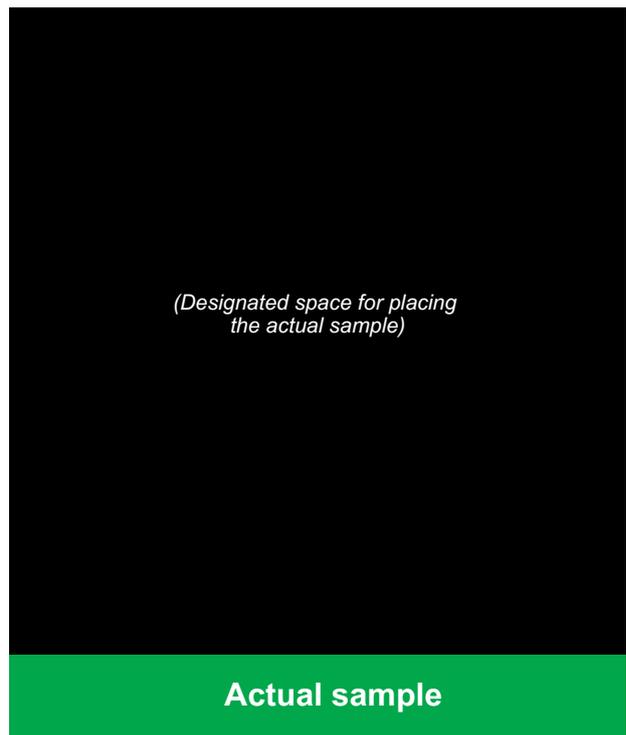
**Soft seconds  
S-G**



Source: PhilFIDA, 2024

Source: PhilFIDA, 2025

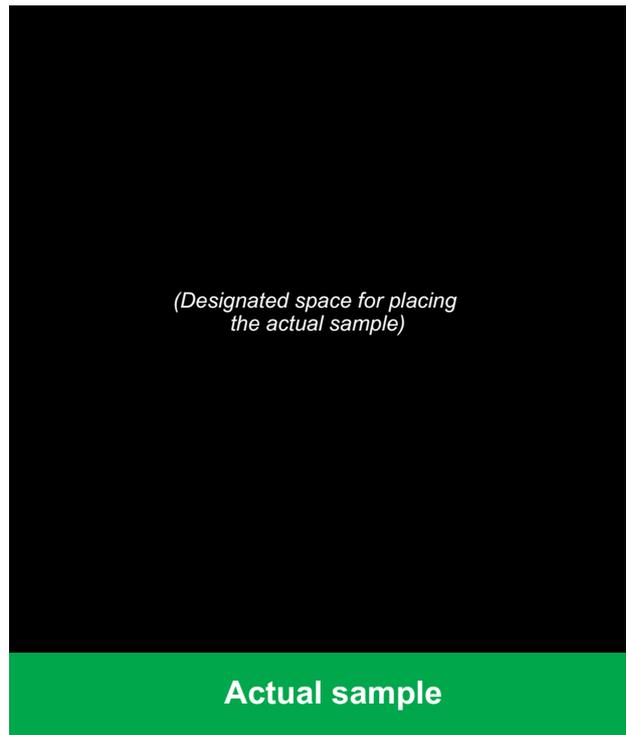
Extracted from	Fiber strand size mm
Same leafsheath that produces grade S-S2	0.51 - 0.99
Color	
Light brown with occasional streaks of very light green	
Stripping	Texture
Good	Medium soft



**Soft brown  
H**



Source: PhilFIDA, 2024



Extracted from	Fiber strand size mm
Outer leafsheath	0.51 - 0.99
Color	
Dark brown	
Stripping	Texture
Good	-

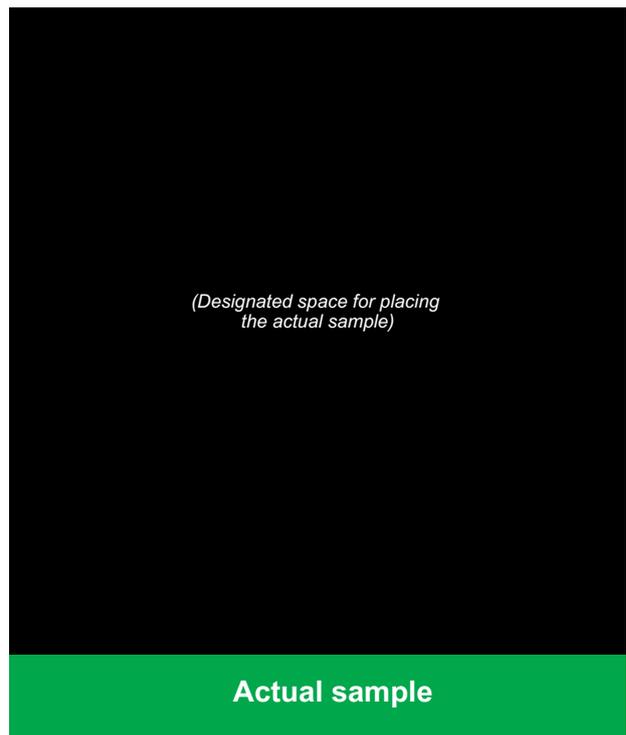
Soft brown  
S-H



Source: PhilFIDA, 2024

Source: PhilFIDA, 2024

Extracted from	Fiber strand size mm
Same leafsheath that produces S-S3	0.51 - 0.99
Color	
Brown to dark brown. Intermixed with substantial portion of fiber with lighter colors. In some, color approaches black	
Stripping	Texture
Good	-



**Seconds JK**



Source: PhilFIDA, 2024

Extracted from	Fiber strand size mm
Inner, middle and next to outer leafsheath	1.00 - 0.50
Color	
Dull brown to dingy light brown or dingy light yellow, frequently streaked with light green	
Stripping	Texture
Fair	-

(Designated space for placing the actual sample)

**Actual sample**

**Seconds  
S-JK**



Source: PhilFIDA, 2024

Extracted from	Fiber strand size mm
Inner, middle and next to outer leafsheath	1.00 - 0.50
Color	
Light dull brown to dingy light brown or dingy light yellow with occasional streaks light green	
Stripping	Texture
Fair	-

(Designated space for placing the actual sample)

**Actual sample**

Medium brown  
M1



Source: PhilFIDA, 2024

Extracted from	Fiber strand size mm
Outer leafsheath	1.00 - 0.50
Color	
Dark brown to almost black	
Stripping	Texture
Fair	-



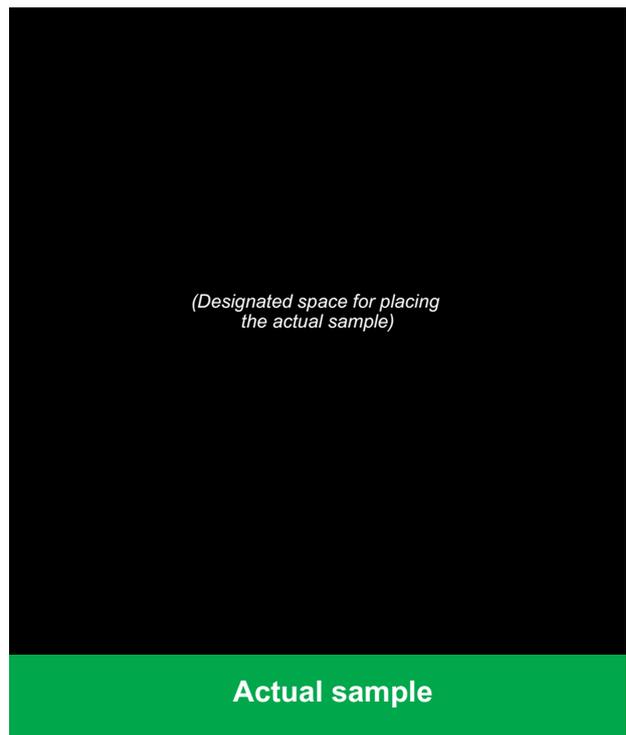
Medium brown  
S-M1



Source: PhilFIDA, 2024

Source: PhilFIDA, 2025

Extracted from	Fiber strand size mm
Same leafsheath from which S-H is obtained	1.00 - 0.50
Color	
Brown or nearly black	
Stripping	Texture
Fair	-



M1



JK



H



G



I



S3



S2



EF



S - M1



S - JK



S - H



S - G



S - I



S - S3



S - S2



S - EF



**Excellent stripping**

- Mid current
- Streaky Two
- Streaky Three

**Good stripping**

- Current
- Soft seconds
- Soft brown

**Fair stripping**

- Seconds
- Medium brown



**Classification of grade according to stripping**

**Table 2.** Residual Grades of hand and spindle/machine stripped abaca fiber

Grade		Description	
Name	Alpha-numeric code	Consists of	Otherwise graded as
Residual fine	Y1	weak, stained, discolored, and/or soiled fiber	EF, S2, S3, I and G
	S-Y1	weak, stained, discolored, and/or soiled fiber	S-EF, S-S2, S-S3, S-I and S-G
Residual fair	Y2	weak, stained, discolored, and/or soiled fiber	H, JK, M1
	S-Y2	weak, stained, discolored, and/or soiled fiber	S-H, S-JK and S-M1
String	O	Made up of strings and twisted or knotted strands of hand-stripped abaca fibers	Ordinary handmade cords used for tying hanks, bales and binding bundles of loose ungraded fibers
	S-O		
Tow	T	Less than 60cm in length	Consists of abaca tip cuttings, short, tangled and broken, resulting from sorting during the process of classification
	S-T		

**Residual fine  
Y1**



*(Designated space for placing  
the actual sample)*

*Source: PhilFIDA, 2024*

**Consists of**

weak, stained, discolored, and/or soiled fiber

**Otherwise graded as**

EF, S2, S3, I and G

**Actual sample**

**Residual fine  
S-Y1**



**Consists of**

weak, stained, discolored, and/or soiled fiber

**Otherwise graded as**

S-EF, S-S2, S-S3, S-I and S-G

*(Designated space for placing  
the actual sample)*

**Actual sample**

**Residual fair  
Y2**



**Consists of**

weak, stained, discolored, and/or soiled fiber

**Otherwise graded as**

H, JK, M1

*(Designated space for placing  
the actual sample)*

**Actual sample**

**Residual fair  
S-Y2**



**Consists of**

weak, stained, discolored, and/or soiled fiber

**Otherwise graded as**

S-H, S-JK and S-M1

*(Designated space for placing  
the actual sample)*

**Actual sample**

String  
O



**Consists of**

Made up of strings and twisted or knotted strands of hand-stripped abaca fibers

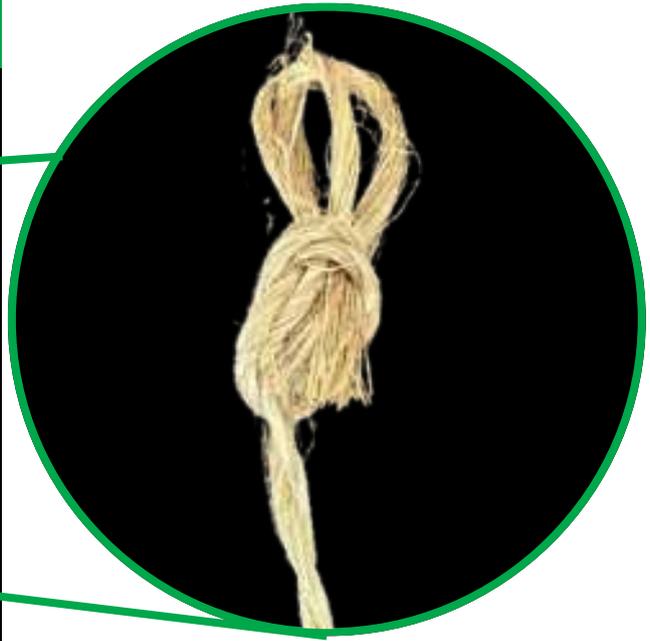
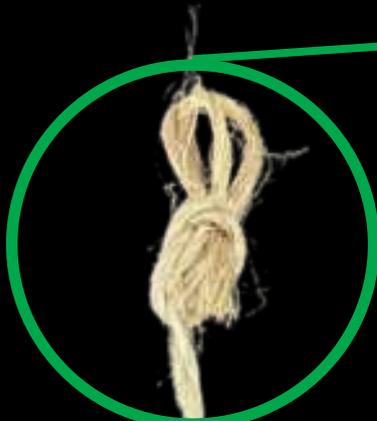
**Otherwise graded as**

Ordinary handmade cords used for tying hanks, bales and binding bundles of loose ungraded fibers

*(Designated space for placing the actual sample)*

**Actual sample**

**String  
S-O**



**Consists of**

Made up of strings and twisted or knotted strands of hand-stripped abaca fibers

**Otherwise graded as**

Ordinary handmade cords used for tying hanks, bales and binding bundles of loose ungraded fibers

*(Designated space for placing the actual sample)*

**Actual sample**

Tow  
T



**Consists of**

Less than 60cm in length

**Otherwise graded as**

Consists of abaca tip cuttings, short, tangled and broken, resulting from sorting during the process of classification

*(Designated space for placing the actual sample)*

**Actual sample**

**Tow  
S-T**



**Consists of**

Less than 60cm in length

**Otherwise graded as**

Consists of abaca tip cuttings, short, tangled and broken, resulting from sorting during the process of classification

*(Designated space for placing  
the actual sample)*

**Actual sample**



**Table 3.** Wide Strips Grades of hand and spindle/machine stripped abaca fiber

Grade		Description	
Name	Alpha-numeric code	Consists of	Otherwise graded as
Wide strip	WS	All fibers that are excessively strippy and woody which does not fit in any of the normal and residual grades of hand stripped and spindle / machine stripped abaca fibers.	None
	S-WS		

**Wide Strip  
WS**



**Consists of**

All fibers that are excessively strippy and woody which does not fit in any of the normal and residual grades of hand stripped and spindle / machine stripped abaca fibers.

**Otherwise graded as**

None

**Wide Strip  
S-WS**



**Consists of**

All fibers that are excessively strippy and woody which does not fit in any of the normal and residual grades of hand stripped and spindle / machine stripped abaca fibers.

**Otherwise graded as**

None

Wide Strip  
WS



Wide Strip  
S- WS



*(Designated space for placing  
the actual sample)*

**Actual sample**

*(Designated space for placing  
the actual sample)*

**Actual sample**



**WS**



**S-WS**

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Tolerances



In all normal grades, a 5% tolerance level would be provided as follows:

- 6.1 Negative (-) 5% of the 35 kg f/gm tensile strength
- 6.2 Negative (-) 5% of the 60 cm length



Tensile testing machine

- 6.3 Positive (+) 5% of the fiber strand size for good and fair stripping

# Sampling



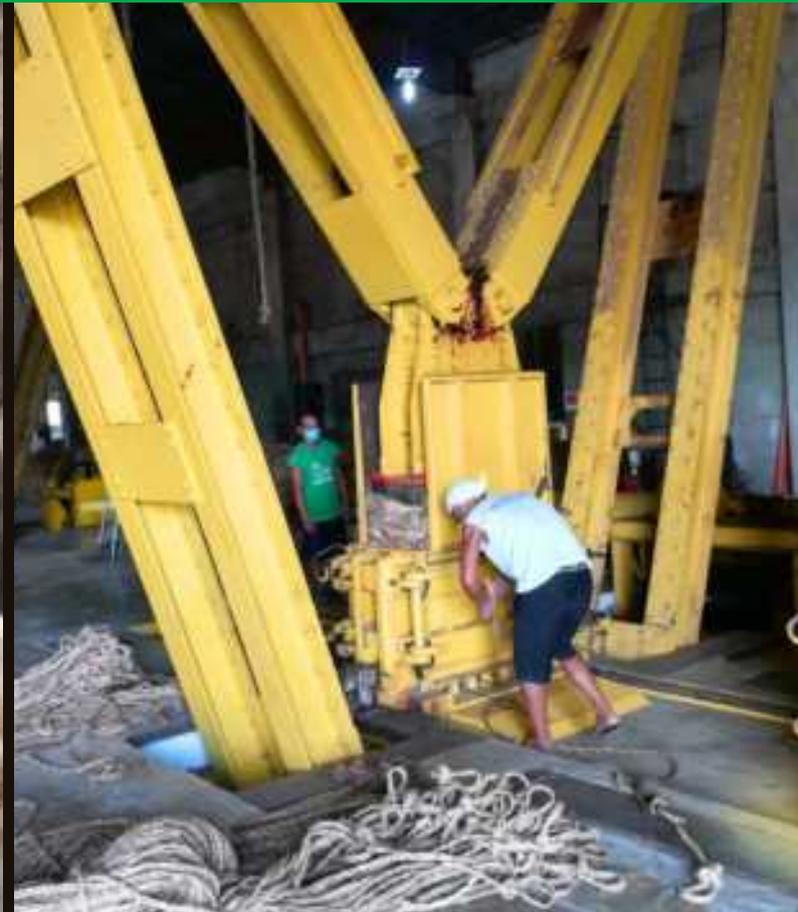
*Sampling procedure is conducted following the baling process.*

## Sampling

The sampling method to be used for ascertaining conformance to the requirements of this specification shall be in accordance with the established procedures used by the competent authority.



Baling



Hand-stripped and spindle-stripped abaca fiber may be baled in this manner:

- 8.1 Every bale of fiber shall contain only dry fibers of the same kind of stripping, grade and province of origin. The fibers must, more or less, be of the prescribed length and free from plastic and other foreign matters.
- 8.2 Hand-stripped and spindle/machine-stripped abaca fiber shall be baled and bound securely by a suitable and strong material of the same kind of fiber.
- 8.3 In case of fibers tied into hanks, hanks shall be five (5) to ten (10) centimeters in diameter at the butt or head. The strand used in tying the hanks shall be of the same kind and grade as the fiber forming the hank and each strand shall not be knotted.



**Fiber tied into hank**

- 8.4 Hanks of abaca shall not be divided in two (2) or three (3) parts but shall be folded once or twice to keep the fibers together before they are laid straight in the press box, the heads or butts of the hanks in one row alternating the tips of the hanks of the next row until the bale is completed. The hanks shall be packed such that the tips of one layer doubles back over the butt of the layer of hanks beneath, and so on.

Grading/Baling Establishment (GBE) may also press bales in such a manner that three (3) or four (4) hanks of fibers are laid straight side-by-side in the press box at the middle of the lower press block 'cojin', the ends of which are laid apart from the inner end-side of the press box. The remaining portion of the hanks shall be coiled along the opposite end-side and along the sides of the press block encircling the butt ends until the entire length of the hanks is so coiled. The subsequent layer of hanks shall similarly be arranged with the butts or head on the opposite side of the layer of hanks below, until all the hanks composing the bale are so placed in the press box.



Folded hanks

- 8.5 Unless otherwise provided, each bale shall have an approximate dimension of 100 centimeters by 55 centimeters by 60 centimeters (100cm x 55cm x 60cm) with a net weight of 125 kilograms after pressing.



Dimensions of a bale

- 8.6 Unless otherwise specified, each bale of fiber shall be securely bound by a suitable and strong binding material of the same kind of fiber which shall not be less than seven (7) ties crosswise nor less than three (3) ties lengthwise. To hold the bales in their regular size, the 2nd, 4th and 6th crosswise ties may be doubled. The extreme ties shall not be closer than ten (10) centimeters from the edge of the bale. The fiber binding materials on each bale shall not weigh more than one (1) kilogram.





Process of baling fiber

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# Labelling



The tagging and marking of bales shall be as follows:

- 9.1 Each bale shall bear a tag known as the long cloth tag for local and long cloth and square tag for export made of unstarched raw cotton of good quality material not less than 58 centimeters long and ten (10) centimeters wide, one end of which shall be securely tied to the fiber inside the bale and the other end shall project out from one end of the bale 15-20 centimeters long.

In case of bales of short fibers where tying of the long cloth tag is not practical, one ends of the long cloth tag shall, instead, be knotted and securely tied to the ties of either bundle composing the bale and must be placed between bundles.

- 9.2 The following data in their order shall be stamped, one below the other, on the long cloth tag placed inside the bale:

9.2.1 The full or abbreviated name of the GBE;

9.2.2 The name of the municipality or city where the establishment is located;

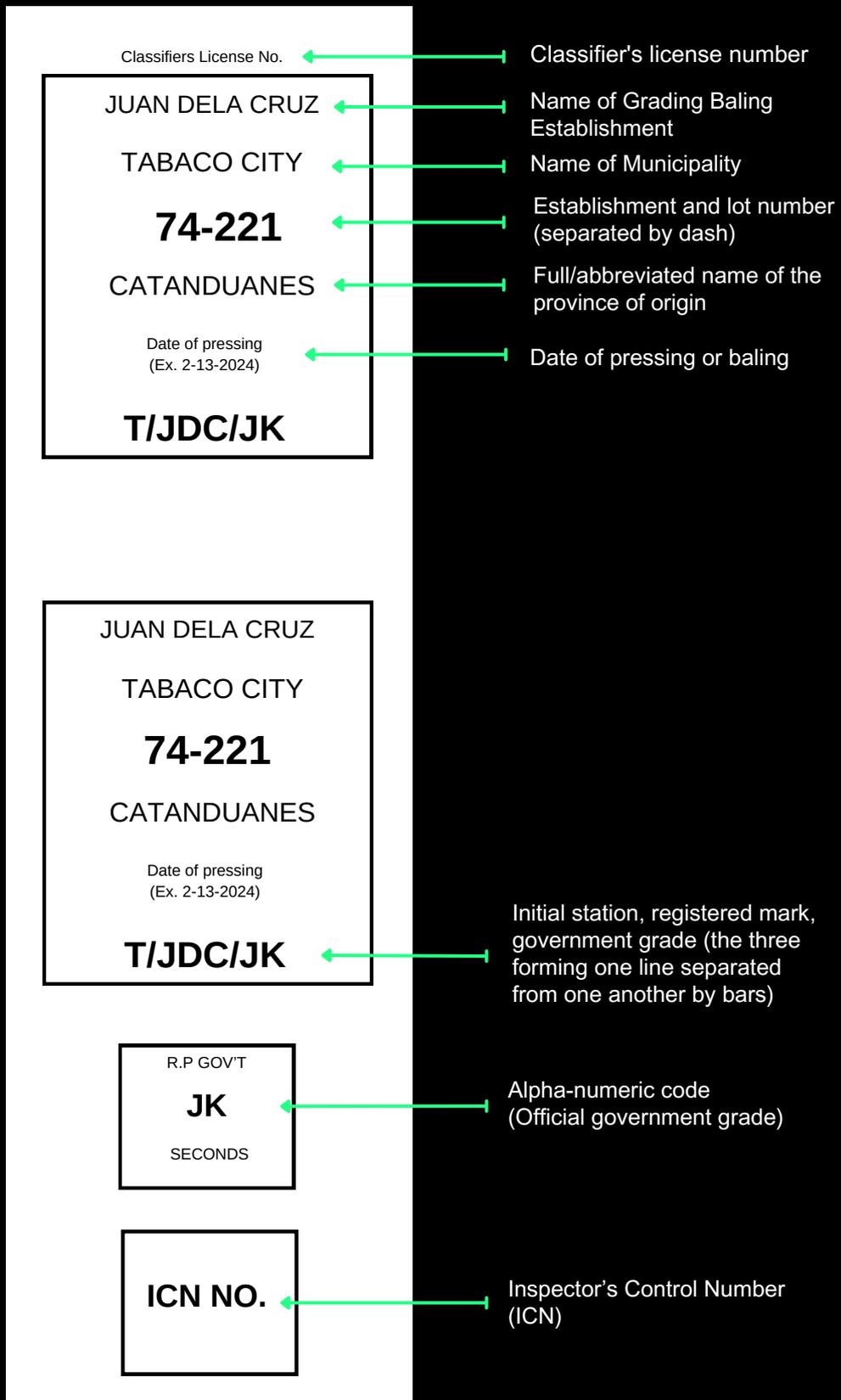
9.2.3 The establishment and lot number separated by a dash;

9.2.4 The full or abbreviated name of the province of origin;

9.2.5 The date of pressing; and

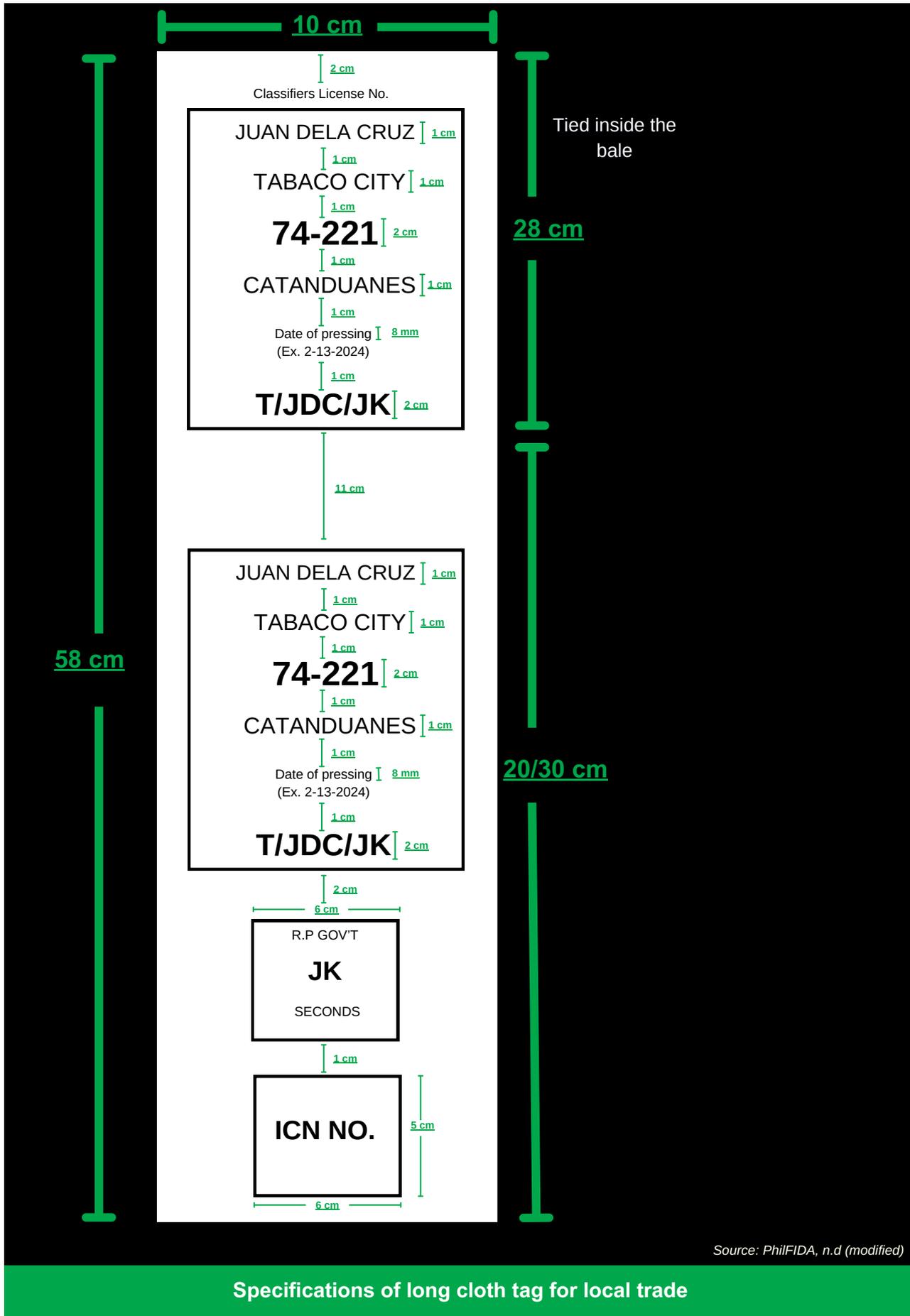
9.2.6 The initial of the station, the registered mark of the establishment, and the letter designation of the grade, the three (3) forming one line separated from one another by bars.

- 9.3 The classifier's license number shall be indicated on the upper portion of the long cloth tag tied inside the bale.



Source: PhilFIDA, n.d (modified)

Labels of long cloth tag for local trade



Source: PhilFIDA, n.d (modified)

Specifications of long cloth tag for local trade

- 9.4 The other end of the long cloth tag projecting out of the bale shall be divided into two (2) sections. The one adjacent to the bale shall bear the same data stamped in the upper end of the tag in the same order, except the classifier's license number, and the rest of the long tag shall be reserved for the official stamps of the Authority.



Cotton cloth tag projecting out of the bale

- 9.5 All markings on the cloth tag, whether letters or numerals, shall be stamped with clear indelible stamping ink and shall not be less than one (1) centimeter in height except the name of the municipality / city where the establishment is located and the date of pressing which shall not be less than eight (8) millimeters.



Indelible stamping ink

- 9.6 For baling of abaca fiber intended for export, another cloth tag of the same or better material than the long cloth tag provided herein may be placed, on one side of the bale underneath the binding or ties. This tag should be in the form of a square tag measuring 35 by 35 centimeters. Upon it, the following data in their order shall be stamped or stenciled, one below the other, clearly in letters not less than five (5) centimeters high except the words 'PRODUCT OF THE PHILIPPINES' which shall have a measurement of not less than one-and-a-half (1½) centimeters in height:
- 9.6.1 The words 'PRODUCT OF THE PHILIPPINES';
  - 9.6.2 The initial of the station where the establishment is located;
  - 9.6.3 The registered mark of the establishment; and
  - 9.6.4 The letter designation of the grade of fiber contained in the bale.

In the absence of the square cloth tag the data required to be placed thereon shall invariably appear clearly on the exposed surface of the wrapping materials on either side of the bale.

- 9.7 Additional marks required by the buyers may only appear on the square tag or long cloth tag, as the case maybe, after the bale has been inspected and approved.
- 9.8 Data/marks required herein to be placed upon the square and long cloth tags shall appear in black paint/ink or its equivalent.

Except those specified in this section unless requested and granted by the authority, no other data marks whatsoever shall appear on the tags of any bale of fiber before inspection.



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# Annex



## Use of Abaca fibers

Name	Alpha-numeric code	Uses
Mid-current	EF, S-EF	<p><b>Fibercrafts:</b> (handbags, hammocks, placemats, rugs, carpets, purses and wallets, fishnets, doormats, scrunches)</p> <p><b>Handwoven fabrics:</b> sinamay, pinukpok, tinalak, dagmay</p> <p>Sacks, Hotpads, Hemp coasters</p> <p>Sacks, Hotpads, Hemp coasters</p> <p>Wall paper, Wall cover</p> <p>Textile</p>
Streaky Two	S2, S-S2	<p><b>Cordage Products:</b> ropes, twines, marine cordage, binders, cords</p> <p><b>Pulp and Paper manufactures</b> (tea bags, filter paper, mimeograph stencil, base tissue, sausage skin, base paper, coffee cup, microglass air filters media, x-ray negative, optical lens wiper, vacuum filter, oil filter)</p> <p><b>Nonwovens:</b> medical gas masks and gowns, diapers, hospital linens, bed sheets</p> <p><b>Fibercrafts:</b> handbags, hammocks, placemats, rugs, carpets, purses and wallets, fishnets, doormats, scrunches</p> <p><b>Handwoven fabrics:</b> sinamay, pinukpok, tinalak, dagmay</p> <p>Wall Paper, Wall Cover</p> <p>Textile</p> <p>Furniture</p>
Streaky Three	S3, S-S3	<p><b>Cordage Products:</b> ropes, twines, marine cordage, binders, cords</p> <p>Sacks, hotpads, hemp coasters</p>

Name	Alpha-numeric code	Uses
Current	I, S-I	<p><b>Cordage Products:</b> ropes, twines, marine cordage, binders, cords</p> <p><b>Pulp and Paper manufactures:</b> tea bags, filter paper, mimeograph stencil, base tissue, sausage skin, base paper, coffee cup, microglass air filters media, x-ray negative, optical lens wiper, vacuum filter, oil filter</p> <p><b>Nonwovens:</b> medical gas masks and gowns, diapers, hospital linens, bed sheets</p>
Soft seconds	G, S-G	<p><b>Cordage Products:</b> ropes, twines, marine cordage, binders, cords</p> <p><b>Pulp and Paper manufactures:</b> tea bags, filter paper, mimeograph stencil, base tissue, sausage skin, base paper, coffee cup, cigarette paper, currency paper, chart, file folders, envelopes, time cards, book binders and parchment paper, micro glass air filters media, x-ray negative, optical lens wiper, vacuum filter, oil filter</p> <p><b>Nonwovens:</b> medical gas masks and gowns, diapers, hospital linens, bed sheets</p> <p><b>Handmade paper:</b> paper sheets, stationaries, all-purpose cards, lamp shades, balls, dividers, placemats, bags, photo frames and albums, flowers, table clock</p> <p><b>Fibercrafts:</b> handbags, hammocks, placemats, rugs, carpets, purses and wallets, fishnets, doormats, scrunches</p> <p>Wall Paper, Wall Cover</p>
Soft brown	H, S-SH	<p><b>Cordage Products:</b> ropes, twines, marine cordage, binders, cords</p> <p><b>Fibercrafts:</b> handbags, hammocks, placemats, rugs, carpets, purses and wallets, fishnets, doormats, scrunches</p> <p>Sacks, Hotpads, Hemp Coasters</p>

Name	Alpha-numeric code	Uses
<b>Seconds</b>	<b>JK, S-JK</b>	<p><b>Cordage Products:</b> ropes, twines, marine cordage, binders, cords</p> <p><b>Pulp and Paper manufactures:</b> cigarette paper, currency paper, chart, file folders, envelopes, time cards, book binders and parchment paper, micro glass air filters media, x-ray negative, optical lens wiper, vacuum filter, oil filter</p> <p><b>Nonwovens:</b> medical gas masks and gowns, diapers, hospital linens, bed sheets</p> <p><b>Handmade paper:</b> paper sheets, stationaries, all-purpose cards, lamp shades, balls, dividers, placemats, bags, photo frames and albums, flowers, table clock</p> <p>Wall Paper, Wall Cover</p> <p><b>Others</b> wire insulator and cable, automobile components/ composites</p>
<b>Medium brown</b>	<b>M1, S-M1</b>	<p><b>Cordage Products:</b> ropes, twines, marine cordage, binders, cords</p> <p><b>Pulp and Paper manufactures:</b> cigarette paper, currency paper, chart, file folders, envelopes, time cards, book binders and parchment paper</p> <p><b>Others:</b> wire insulator and cable, automobile components/composites</p>
<b>Residual fine and Residual Fair</b>	<b>Y1, S-Y1, Y2 and S-Y2</b>	<p><b>Cordage Products:</b> ropes, twines, marine cordage, binders, cords</p> <p><b>Pulp and Paper manufactures:</b> cigarette paper, currency paper, chart, file folders, envelopes, time cards, book binders and parchment paper</p> <p><b>Handmade paper</b> (paper sheets, stationaries, all-purpose cards, lamp shades, balls, dividers, placemats, bags, photo frames and albums, flowers, table clock)</p> <p>Wall Paper, Wall Cover</p> <p><b>Others:</b> wire insulator and cable, automobile components/composites</p>

Name	Alpha-numeric code	Uses
<b>String and Tow</b>	<b>O, S-O, T, and S-T</b>	<b>Pulp and Paper manufactures:</b> cigarette paper, currency paper, chart, file folders, envelopes, time cards, book binders and parchment paper <b>Others</b> wire insulator and cable, automobile components/ composites

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Administrative Circular no. 12 series of 2020 also known as “Rules and Regulations to Govern Licensing and Shipment of Philippine Commercial Fibers. Source: <https://philfida.da.gov.ph/images/Issuances/administrative-circular/ac-no-12-s-2020-rules-and-regulations.pdf>

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### **Page 8**

PhilFIDA. (n.d). List of NSIC registered Abaca. (Photograph).

### **Page 10**

PhilFIDA. (2024). Stationary stripping machine. (Photograph).

### **Page 11**

PhilFIDA. (2024). Cross-section of an abaca stalk. (Photograph).

PhilFIDA. (n.d). Leaf sheaths of abaca. (Photograph).

### **Page 16 (left to right, top to bottom)**

PhilFIDA. (2024). Grading/Baling Establishment (GBE). (Photograph).

### **Page 21**

PhilFIDA. (2024). Tuxying. (Photograph).

### **Page 24**

PhilFIDA (*modified*). (2024). Stained fiber. (Photograph).

### **Page 30**

PhilFIDA. (2024). Mid-current: EF. (Photograph).

### **Page 31**

PhilFIDA. (2025). Mid-current: S-EF. (Photograph).

### **Page 37**

PhilFIDA. (2025). Mid-current: S-I. (Photograph).

**Page 39**

PhilFIDA. (2025). Mid-current: S-G. (Photograph).

**Page 41**

PhilFIDA. (2025). Mid-current: S-H. (Photograph).

**Page 45**

PhilFIDA. (2025). Medium brown: S-M1. (Photograph).

**Page 50**

PhilFIDA. (2025). Residual fine: Y1. (Photograph).

**Page 62**

PhilFIDA. (n.d). Wide strip (WS). (Photograph).

PhilFIDA. (n.d). Wide strip (S-WS). (Photograph).

**Page 67**

PhilFIDA (modified). (n.d). Section 7: Sampling. (Photograph).

**Page 71**

PhilFIDA (modified). (2025). Dimension of a bale. (Photograph).

**Page 73**

PhilFIDA. (2025). Re-weighing. (Photograph).

PhilFIDA. (2025). Bales ready for inspection. (Photograph).

**Page 77**

PhilFIDA (modified). (n.d). Labels of long cloth tag for local trade. (Illustration).

**Page 78**

PhilFIDA (modified). (n.d). Specifications of long cloth tag for local trade. (Illustration).

**Page 81**

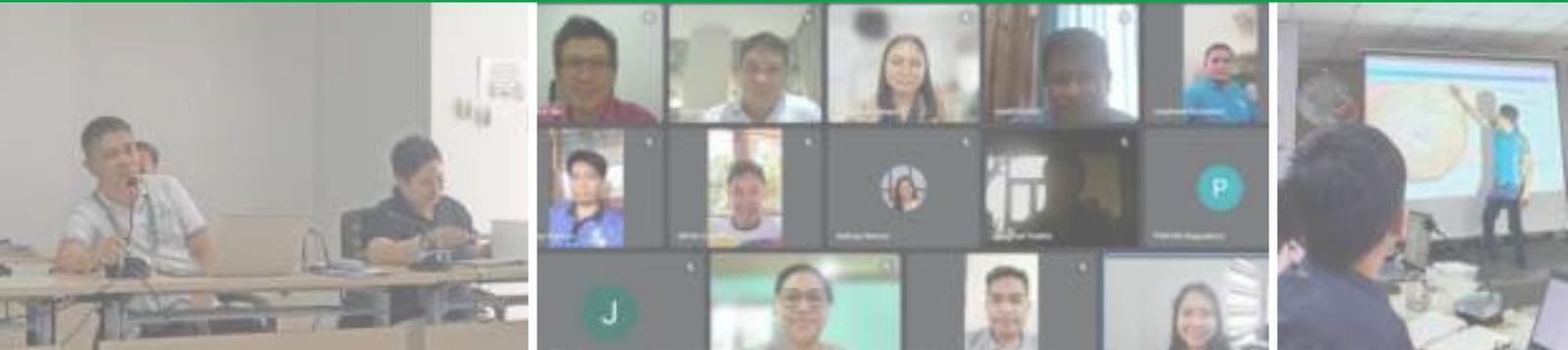
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**Page 83**

Canva. (2025). Annex. (Photograph).

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# Technical Working Group



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**Technical Working Group (TWG) on the Development of the**  
**Illustrative Guide for Abaca fiber - Grading and Classification -**  
**Hand - stripped and Spindle/Machine - stripped**

*DA Special Order No. 369 series 2024*

*Creation of TWG for the development of Knowledge Products of selected  
Philippine National Standards*

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Illustrative Guide (IG) serves as a supplementary Philippine National Standards (PNS) learning material to aid regulatory officers and other interested stakeholders in having a uniform understanding and interpretation of the PNS for its efficient adoption and implementation.



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