

# PHILIPPINE NATIONAL STANDARD

PNS/BAFPS 74:2009  
ICS 65.080

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## Coconut peat – Grading and classification



**BUREAU OF PRODUCT STANDARDS**

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**Foreword**

The Philippine National Standard (PNS) for Grading and classification of coconut peat was adopted from the Draft Import Health Standard for Importation of Coco Peat and Coir Fiber Products of New Zealand. Modifications were made based on existing commercial practices in order to tailor fit the standard to Philippine requirements, particularly on the grading, packing and labelling.

A memorandum was circulated requesting comments from industry stakeholders, responsible agencies and competent authorities for the finalization of the draft PNS. Accordingly, relevant comments and inputs were included in the standard.

The PNS for Grading and classification of coconut peat aims to provide common understanding on the scope of the standard, product description, minimum requirements, grading, packaging, sampling and labelling requirements for product lot acceptance.

**Coconut peat – Grading and classification**

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**1 Scope**

This standard specifies requirements and establishes a system of grading and classifying coco peat, a product from extraction of fiber from coconut husks. This standard covers coco peat intended to be used as a growing medium in various grades and finished products for horticultural/agricultural use. This excludes coco peat used for animal bedding.

**2 References**

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

**3 Definitions****3.1****bale**

refers to the volume and manner of packing the coco peat traded commercially

**3.2****coco dust**

a product produced when coconut husks are processed for the extraction of coir. This also refers to coir dust

**3.3****coco peat**

decomposed and processed coco dust

**3.4****breakout volume**

the final volume of coco peat when fully unpacked, decompressed and rehydrated

**3.5****contamination**

Unwanted presence in a commodity, storage place, conveyance or container, of any material (including a regulated organism) that may pose a biosecurity risk

**3.6****foreign matter**

shall include, but not limited to dust, plastic, stone which are extraneous

**3.7****grade**

shall refer to the designation of coco peat quality according to the established government standard

### 3.8

#### **pest**

any species, strain or biotype of plant, animal or pathogenic agent injurious to plants or plant products [FAO, 1990; revised FAO, 1995; IPPC, 1997]

### 3.9

#### **treatment**

official procedure for the killing, inactivation or removal of pests, or for rendering pests infertile or for devitalization [FAO, 1990, revised FAO, 1995; ISPM No 15, 2002; ISPM No 18, 2003; ICPM 2005]

## 4 Minimum requirements

- Coco peat must be kept clean and free of seeds, pests, soil, animal material and any other contamination.
- Coco peat processing areas must be free from loose animals such as chicken, dogs, pasture animals and pets which may excrete manure to the coco peat material.
- Coco peat must absolutely be free from salmonella and E. coli bacteria
- No coco peat is to be produced from the traditional method of retting husks in open troughs or ponds.
- Washing or rinsing of coco peat, chips or crush must be carried out with bore clean water with EC of not more than 0.5mS/cm and/or rain water (direct rainfall), pond or dam water free from impurities.
- Coco peat drying areas must be buffered underneath from contact with soil.
- A weed free buffer zone of 3 meters must be maintained around the coco peat drying areas unless concrete walls are built on the perimeter of concrete pads.

## 5 Grading

There shall be six (6) types of grading system for coco peat:

### **Grade A: Fine special grade**

Coco peat sieved finer than 5 mm mesh  
At least 6 months old  
Washed/leached  
pH : 5.5 to 6.5  
EC<sup>1</sup>(1:5 test): Below 0.5 mS/cm  
Moisture content: ≤ 20 %

Mostly used for seed raising substrates and green house hydroponics growing and salt sensitive plants and horticultural potting mixes.

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<sup>1</sup> Electrical conductivity expressed as microSiemens per centimeter

**Grade B: Fine standard grade**

Coco peat sieved in 5 mm mesh  
At least 6 months old  
Washed/leached  
EC(1:5 test): Below 1.0 mS/cm  
pH : 5.5 to 6.5  
Moisture Content:  $\leq 25 \%$

Mostly used for seed raising substrates, mushroom grow medium-mix, golf courses, green soil medium mix and special potting mixes

**Grade C: Standard grade**

Unsieved Cocopeat with approx. 10 % - 15 % short fibers  
At least 3 months old  
Washed/leached  
EC(1:5 test): Below 1.0 mS/cm  
pH : 5.5 to 6.5  
Moisture Content:  $\leq 25 \%$

Mostly used for export for potting mixes, hydroponics and soil conditioning

**Grade D: Partially dried regular grade**

Unsieved Cocopeat with approx. 10 % - 15 % short fibers  
At least 3 months old  
Unwashed/unleached  
EC(1:5 test): Below 2.0 mS/cm  
pH : 5.5 to 6.5  
Moisture Content:  $\leq 30 \%$

In its pure state, mostly used for direct application for soil conditioning, increase of organic matter content in upland crops, for moisture retention purposes for turf and potting in nurseries;

**Grade E: Regular grade**

Unsieved Cocopeat with approx. 10 % - 15 % short fibers  
At least 3 months old  
Unwashed/unleached  
EC(1:5 test): Below 2.0 mS/cm  
pH : 5.5 to 6.5  
Moisture Content:  $\leq 60 \%$

In its pure state, mostly used for direct application for soil conditioning, increase of organic matter content in upland crops, for moisture retention purposes for turf and potting in nurseries;

**Grade F: Fresh coco dust**

- Undried
- Less than 3 months old
- EC (1:5 test): Below 2.5 mS/cm
- pH : 5.5-6.5
- Moisture Content: ≥ 60 %

In its natural state, mostly used for direct application for plants with high salt tolerance/high chloride requirement.

**6 Packaging standards**

There shall be four (4) types of packaging for coco peat:

**A. Coco peat brick (650 gm)**

- Dimension : 20 cm x 10 cm x 5 cm (+/- 2 cm)
- Unit Weight : 650 gm
- Expansion : Above 8 liters
- Compression : 7:1

**B. Coco peat block (5 kg)**

- Dimension : 30 cm x 30 cm x 13 cm (+/- 2 cm)
- Unit Weight : 5 Kg
- Expansion : 70 to 80 liters
- Compression : 5:1

**C. Coco peat bale (25 kg)**

- Dimension : 80 cm x 40 cm x 33 cm (+/- 2 cm)
- Unit Weight : 25 kg
- Expansion : Above 250 liters
- Compression : 2:1
- Packing: 3mils Polyethylene (PE) opaque white bag

**D. Uncompressed coco peat (bagged)**

- 60 liter PE bag with minimum breakout volume of 70 liters

**7 Sampling**

Coco peats will be randomly sampled at the following rates (for a full 40-ft container load):

Product	No. of units
Bricks	585
Blocks	50
Bales	4
Uncompressed coco peat (bagged)	Use sampling plan for coir products

Parameters and methods of analysis for coco peat are found in Annex 1.

## **8 Labelling**

The following shall be printed on the PE Plastic packaging of the bale or the package (optional):

- 8.1** The words “PRODUCT OF THE PHILIPPINES”;
- 8.2** The name of the company;
- 8.3** The name of the municipality or city where the establishment is located;
- 8.4** 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 each other by bars; and
- 8.5** The establishment number and lot number, the district of production and the date of pressing, the three (3) forming one line separated by bars.

## **9 Inspection**

The Philippine Coconut Authority (PCA) will grade, classify and inspect coco peat to check for the presence of pests signs or symptoms, soil, seeds or any other detectable contaminants. For domestic movement of coco peat, PCA shall issue certificate of origin and permit to transport prior to issuance of quarantine certificate of DA Regional Field Units – Plant Quarantine Service. Accordingly, PCA shall issue commodity clearance for all coco peat intended for export. The commodity clearance shall be a pre-requisite to issuance of phytosanitary certificate by the Bureau of Plant Industry.

PCA can tap the services of its recognized laboratories for analysis subject to agency rules and regulations.

## **10 Compliance and specification**

When found to comply with the requirements specified in this Philippine Standard Specification, the lot, the batch, or the consignment from which the samples have been drawn, shall be deemed to comply with the Philippine National Standard Specification.

BAFPS shall monitor the implementation and compliance to this set of standards.

**Annex 1**  
**Method of analysis for coco peat**

<b>Parameters</b>	<b>Method of analysis</b>
1. E. Coli.	Bacteriological analytical manual
2. Salmonella	Bacteriological analytical manual
3. Moisture content	Air Oven @ 105 °C
4. pH	Potentiometric (1:5 test)



## References

**PNS/BAFPS 74:2009**

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.

Biosecurity New Zealand. (2008). Draft Import Health Standard for Importation of Coco Peat and Coir Fibre Products.

Evans, M. R. and Stamps, R.H. (undated). Development of Philippine Coir Dust as A Productive Substrate for the Horticultural Market (A Final Report), Manila, Philippines. 46pp

Fiber Industry Development Authority (1999). Revised Administrative Order No.1, Chapter 3: Baling, Tagging, Marking and Inspection of Fibers.

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