

# EXPORT-GRADE COCOA SHELL SPECIFICATIONS

## A Practical Technical Guide for Industrial Buyers

Revised version: This document replaces unsupported universal grades and guarantees with an application-based, batch-conscious approach. It is intended as a buyer-facing technical guide, not as a Certificate of Analysis (CoA).

### 1. What Are Cocoa Bean Shells?

Cocoa bean shells are the outer shell or seed coat separated from cocoa beans during processing. They are different from cocoa pod husk, which is the outer shell of the cocoa fruit itself.

Cocoa bean shells are an established cocoa-processing by-product and have been studied for agricultural and industrial applications. For buyers considering cocoa shells for a particular process, the important question is not simply whether the material is 'cocoa shell.' It is whether the material is suitable for the buyer's process at an agreed quality and commercial specification.

### 2. Why There Is No Single “Export-Grade” Cocoa Shell Specification

A common mistake in commodity trading is to treat a by-product as though it were a manufactured product with one universal grade.

That is not how cocoa shells should be approached. A biomass operator may be concerned mainly with moisture, calorific value, ash and physical handling. A biochar producer may look more closely at moisture, ash, particle size, organic matter and consistency. A compost or fertilizer manufacturer may have different requirements relating to moisture, organic matter, foreign matter and contaminants.

Therefore, the commercial specification should be agreed with the buyer rather than copied from a generic supplier datasheet.

### 3. The Main Parameters Buyers Should Check

#### Moisture

One of the first parameters to discuss. For biomass applications, excessive moisture can reduce useful energy because heat is used to evaporate water. Moisture also matters for storage and transport. A buyer may specify a maximum such as 10%, but that is a contract requirement, not a universal rule for every application. The sampling point and test method should be stated.

#### Ash

Ash is the inorganic residue left after combustion. It can affect combustion-system performance, ash handling and disposal requirements. A higher-ash material is not automatically a bad product; it may simply be unsuitable for a system designed around a lower-ash fuel. Do not promise a low ash number without a current laboratory result for the material being offered.

#### Calorific value

Important when cocoa shells are considered as biomass fuel. The result should come from a defined laboratory test and state the reporting basis. A previous laboratory result should be treated as a result for the tested sample or batch, not a guaranteed value for every future shipment.

#### Foreign matter

Foreign matter can include stones, plastics, metal pieces, soil or other unwanted material. The acceptable limit should be agreed with the buyer because tolerance depends on the receiving plant and application.

## **Particle size**

Particle size can affect feeding, conveying, screening, grinding and other processing operations. There is no reason to promise one mesh size to every buyer. If a buyer has a specific screen or feeding requirement, agree it before preparation of the shipment.

## **Crude fibre**

Useful as a characterization parameter, particularly for agricultural or feed-related applications. A fibre result by itself does not establish that cocoa shells are suitable for animal feed; the complete regulatory, safety and nutritional requirements must be considered.

## **Heavy metals and contaminants**

For some applications, buyers may request heavy metals, mycotoxins or other contaminant testing. These should be tested where relevant to the application and destination requirements. Avoid 'zero heavy metals' claims. A proper laboratory report should identify the substance, result, unit and relevant detection or quantification limit.

## **4. What a Good Cocoa Shell Technical Data Sheet Should Contain**

- Product name and description
- Origin
- Intended applications
- Moisture
- Ash
- Calorific value, where relevant
- Crude fibre, where relevant
- Foreign matter
- Particle size
- Appearance
- Packaging
- Sampling and testing basis
- Relevant contaminant testing
- Statement that final commercial specifications are agreed before shipment

TDS vs CoA: A Technical Data Sheet describes the product and the supplier's commercial specification. A Certificate of Analysis reports laboratory results for a particular sample or batch. Buyers should know which document they are receiving.

## **5. How Enbri Approaches the Specification**

Our approach is straightforward. We first ask what the buyer wants to use the cocoa shells for.

We then review the required specification, quantity, packaging and destination. Where laboratory information is available, it is provided as representative information for evaluation. Where a buyer requires shipment-specific testing, the testing requirement can be agreed as part of the transaction.

For recurring supply, the buyer and supplier should agree the contractual specification, sampling method, testing procedure and acceptance limits before shipment.

## **6. Packaging and Storage**

Cocoa shells should be protected from unnecessary moisture and contamination during storage and transport.

Depending on the buyer's handling system, packaging may include woven PP bags, jumbo bags/FIBCs, or bulk loading where suitable.

The final arrangement should be based on the buyer's unloading equipment, container configuration, handling requirements and agreed shipment weight.

There is no universal container tonnage that applies to every cocoa-shell shipment. Actual loading depends on packaging, bulk density, container type, payload limits and transport regulations.

## **7. Testing and Quality Control Before Shipment**

- Moisture analysis
- Ash analysis
- Calorific value
- Fibre analysis
- Foreign matter assessment
- Particle-size analysis
- Heavy-metal testing
- Mycotoxin testing
- Other application-specific tests

If independent inspection is required, the parties should agree the inspection company, sampling procedure and acceptance criteria before shipment. The test result should relate to the material being sold.

## **8. Export Documentation**

Documentation depends on the destination and the contract. For formal exports from Nigeria, commercial and shipping documents can include a proforma invoice, commercial invoice, packing list, NXP-related documentation, certificate of origin, bill of lading and inspection or quality documents where required.

Plant products may also require phytosanitary certification depending on the importing country's requirements.

Nigeria's National Agricultural Quarantine Service (NAQS) is responsible for plant quarantine inspection and phytosanitary certification for regulated plant and plant products. Buyers should confirm destination requirements before shipment.

The Nigerian Export Promotion Council (NEPC) provides guidance on export documentation and procedures.

## **9. What International Buyers Should Agree Before Price**

1. Intended application
2. Product description
3. Quantity
4. Moisture limit
5. Ash limit, where relevant

6. Foreign matter limit
7. Particle-size requirement
8. Packaging
9. Loading port
10. Destination port
11. Incoterm
12. Inspection and testing procedure
13. Required export documents
14. Shipment period
15. Payment terms
16. Procedure for handling non-conforming cargo

Once these points are clear, price comparisons become much more meaningful.

## **10. Why Application Should Come Before Price**

Two buyers can ask for 'cocoa shells' and have completely different requirements. One may be looking for biomass fuel, another for pyrolysis, and another for compost or fertilizer production.

The material does not necessarily need to be identical for all three buyers. The right commercial approach is to understand the application first and then agree the specification around that application.

That protects both sides.

## **11. Practical Buyer Checklist**

- What exactly is the product?
- Where does it come from?
- What is the intended application?
- What specification is being offered?
- Is the laboratory result representative or shipment-specific?
- When was the sample tested?
- Which laboratory performed the test?
- Which test methods were used?
- What packaging is available?
- How will the material be sampled before loading?
- What documents will accompany the shipment?
- What happens if the cargo does not meet the agreed specification?

## **12. Enbri Nig. Ltd. — Current Commercial Position**

Enbri Nig. Ltd. is a Nigerian commodity exporter working with Nigerian agricultural products for international markets.

For cocoa shells, our current commercial approach is based on application-specific supply rather than one universal grade.

Our indicative cocoa-shell supply capacity is approximately 75–150 MT per month, subject to availability, sourcing conditions and confirmed orders.

We can discuss FOB Nigeria or destination-based terms depending on the buyer's quantity, destination port, packaging and shipment requirements.

We welcome enquiries from biomass companies, biochar producers, compost and fertilizer manufacturers, commodity traders and other industrial buyers.

If you already have a specification, send it to us. If you do not have one, tell us what you intend to use the cocoa shells for and the basic operating requirements of your plant. We can then discuss what information needs to be confirmed before a quotation is prepared.

## **Conclusion**

A good cocoa-shell transaction starts with a clear specification, not a cheap price.

Cocoa shells are a natural agricultural by-product, so some variation is normal. The job of the supplier and buyer is to understand that variation, test what matters and agree the commercial specification before shipment.

That is the approach we take at Enbri Nig. Ltd.

For a current enquiry, send: quantity required, intended application, specification, packaging preference, destination port, preferred Incoterm and shipment period.

## **Enbri Nig. Ltd. | Nigeria — West Africa**

Email: [info@enbrinigltd.com.ng](mailto:info@enbrinigltd.com.ng) | WhatsApp: +234 913 783 4286 / +234 811 026 2245

## **Recommended Internal & External References**

[Enbri cocoa bean shell export product](#)

[Enbri: What Are Cocoa Shells?](#)

[Enbri: 7 Things Every International Buyer Should Verify](#)

[Enbri: How to Source Bulk Cocoa Shells](#)

[Enbri: Cocoa Shell Supplier Vietnam](#)

[Enbri: Cocoa Shell Supplier Cambodia](#)

[Enbri: Cocoa Shell Biomass Fuel](#)

[FAO — Cocoa by-products / cocoa bean shell background](#)

[ISO — ISO 665:2020 moisture and volatile matter method \(oilseeds\)](#)

[Nigeria Agricultural Quarantine Service — Plant Quarantine](#)

[Nigeria Agricultural Quarantine Service — Export Requirements](#)

[NEPC — Export Documents & Procedures](#)

Important: ISO 665:2020 is a standard for oilseeds. It should not be presented on the website as a universal cocoa-shell test standard. For any cocoa-shell transaction, the agreed laboratory method should be stated on the relevant report or contract.