

WHITEPAPER

# Cocoa beans at risk

When container moisture sneaks in,  
cocoa quality and value slip away





## It was fine until it wasn't

The container was loaded. The weather seemed stable. The beans were packed in jute bags and stacked securely. There was no sign of risk. But then the reports arrive:

- Bags along the walls damp
- Mould appearing on the beans
- Sour or off-smells replacing the expected cocoa aroma
- Quality claims from buyers, or even rejected deliveries

Even if the beans still meet *minimum* specifications, the damage is done. Cocoa graded with moisture or mould is downgraded, and so is its price. Warehouses charge extra for sorting and drying, and in some cases, part of the cargo is sold to salvage buyers for a fraction of its value.

What looked like a routine shipment becomes a chain of hidden costs — in reconditioning, disputes, and lost trust.

This is the real cost of moisture in the cocoa supply chain.

## Cocoa: a precious but sensitive cargo

Cocoa beans are a high-value product — and a highly sensitive crop. Their natural hygroscopic nature makes them especially vulnerable to moisture damage. That's why desiccants are mandatory during shipping: to preserve the beans' aroma, taste, and quality all the way to the buyer.

## Why moisture matters more than you think

Even when cocoa beans meet export requirements, shipping conditions can ruin their quality:

- **Damaged packaging — wet bags**
- **Bad or changed smell — loss of aroma or sour notes from mould**
- **Bad or changed taste — reduced quality and rejected deliveries**

The risk starts at origin. Farming and handling take place in hot, humid climates. At loading, cocoa beans typically hold around 7-8% moisture content. During shipping, part of this moisture evaporates inside the container — increasing the risk of container rain and condensation damage.





## Why other solutions fall short

Low quality desiccants are still commonly used, but their limited absorption capacity — and frequent risk of leakage — mean they often fail to protect throughout the entire journey. The result:

- More units needed to achieve basic performance
- Desiccants saturating long before arrival
- Moisture exposure that still damages the cargo

## Our solutions for cocoa

The most effective protection starts with good loading practices — ensuring no unnecessary moisture enters the container. Absortech's Peace of Moisture Mind® (POMM®) process helps review packing and loading conditions, then prescribes exactly the right desiccant strategy.

We recommend AbsorGel® Max for cocoa shipments:

- **High-performance:** absorbs up to ~250% of its own weight in moisture under real shipping conditions — roughly twice the capacity of standard calcium chloride desiccants and up to three times that of lower-grade alternatives.
- **Low carbon footprint:** fewer units required, less plastic and waste.
- **FCC compliant:** meets the Federation of Cocoa Commerce guidelines for container shipments.
- **Trusted:** recommended and approved by key insurance companies 8–12x absorption compared to clay/silica.

## Solution approved by the main cocoa stakeholders



FEDERATION OF  
COCOA COMMERCE



Ghana Cocoa Board  
Poised to Maintain Premium Quality Cocoa



ABSORGEL® MAX



ABSORGEL® MAX IN-USE

## Absortech recommendation based on FCC guidelines for shipment of cocoa beans in containers

The following recommendations are based on the optimal absorption capacity to be installed as per the FCC shipping guidelines for a 40 feet container: 40 liters of absorption for short-distance journeys and 60 liters for long-distance journeys.

UNITS TO INSTALL	SHORT DISTANCE	LONG DISTANCE
ABSORGEL MAX - X 1,5 KG,	11 PCS	17 PCS

These numbers are a result of extensive tests. The quantity of kgs. of AbsorGel® needed for a sufficient moisture damage prevention depends on an array of factors such as: journey time, original moisture in beans, etc. The FCC recommendation is a minimum and calculated based on the fixed assumption that 40 litres / 60 litres of absorption is needed for a short and long distance respectively.



## Why AbsorGel® works for cocoa?

- **Prevents container rain during long transits**  
AbsorGel® desiccants have the capacity to handle large amounts of moisture released by cocoa beans during shipping. By preventing excess moisture inside the container, they prevent condensation from forming on ceilings and walls — stopping “container rain” before it damages sacks or beans.
- **Keeps packaging dry and intact**  
Wet jute bags and collapsed stacks are a common source of claims and extra labor. AbsorGel® protects the outer layers of packaging, ensuring bags remain firm, clean, and easy to handle upon arrival.
- **Preserves cocoa’s smell, taste, and market value**  
Cocoa’s unique flavor and aroma are its greatest asset — and also its greatest vulnerability. By minimizing excess moisture and preventing mould growth, AbsorGel® helps keep beans in the same condition as when they were loaded, safeguarding the quality buyers expect.
- **Reduces losses, claims, and disputes**  
Moisture damage often results in partial cargo loss, insurance claims, and lengthy disputes with buyers. Using FCC-approved AbsorGel® desiccants minimizes these risks, helping exporters deliver sound cargo and avoid financial and reputational setbacks.
- **Protects your brand and reputation in a competitive market**  
In the cocoa trade, reliability matters as much as quality. With AbsorGel®, you demonstrate commitment to best practices, recognized by key authorities such as the Federation of Cocoa Commerce (FCC) and the Ghana Cocoa Board. This not only protects shipments — it strengthens your brand and relationships across the supply chain.





### Let's keep cocoa fresh

If you've ever experienced wet or mouldy cocoa bags, wejected deliveries due to off-smell or taste, damaged packaging on arrival, it's time to reassess your moisture control strategy. ...it's time to reassess your moisture control strategy.

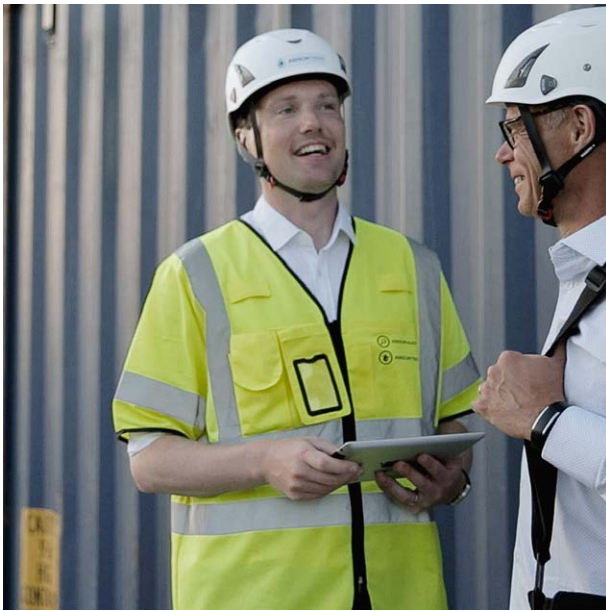
## Want a simple guide or logistics toolkit?

This whitepaper provides the context. But if you'd like:

- **A simulation of your shipping routes**
- **An AbsorSave™ cost estimate**
- **A POMM® checklist for cocoa packing and loading**

Contact our experts. We'll help you keep your cocoa dry, protected, and profitable.

[CONTACT OUR EXPERTS](#)



Absortech helps you prevent moisture damage during transport. Our promise is to protect your brand, increase your savings and lower the environmental footprint of your logistics processes. We are a pioneer in moisture damage prevention with headquarters in Sweden. Since 1996, we have been offering a wide range of inhouse developed and produced desiccants made from calcium chloride. Peace of Moisture Mind® is our moisture damage prevention concept, which includes steps like audits, tests and global supply chain solutions. We are committed to base our operations on sustainable principles and help businesses like yours implement sustainable solutions to prevent moisture damage.

[LEARN MORE AT ABSORTECH.COM](https://www.absortech.com)



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