

# Cocoa

## Moisture damage prevention solutions



Sustainable protection  
for cocoa during  
container transport:

- High-efficiency desiccants with extraordinary absorption capacity.
- CO<sub>2</sub> neutral desiccant solution with recycled plastic accessories.
- Solutions validated by key surveillance and insurance companies and FCC shipping guidelines compliant.
- Easy to install desiccants with compact design and minimized risk of water leakage.







## Eliminate the root cause with a sustainable choice

The most efficient way to prevent moisture damages during shipment is to remove the root cause: reducing the moisture inside the container and keeping it low or at a safe level for the cocoa cargo.

Absortech provides products and services to prevent moisture damage. Our desiccants have a **high absorption capacity**, resulting in **less installation time** and **less amount of desiccants needed for equal protection** compared to general desiccants available in the market, and consequently **less plastic**.

AbsorGel® container desiccants are a sustainable choice for your company and help to lower the environmental impact of the cocoa shipping activities in comparison with other solutions:

- **Carbon neutral desiccants with net zero CO<sub>2</sub> emissions from cradle-to-gate.**
- **Installation accessories made with recycled plastic, easy to disassemble and recycle.**
- **Less amount of desiccant needed for an optimal protection.**
- **Circular economy program, Return-to-Reuse, available for accessories. Read more about this program [here](#).**

## Solution approved by the main cocoa stakeholders

The Federation of Cocoa Commerce (FCC) recommends the use of container desiccants with a minimum of 65% of calcium chloride. AbsorGel® desiccants comply with FCC requirements and are also validated by the Ghana Cocoa Board after successfully passed large-scale field test, and other important surveillance companies. AbsorGel® Max is currently recommended by key insurance companies to their customers to protect their products.



FEDERATION OF  
COCOA COMMERCE



**Ghana Cocoa Board**  
Poised to Maintain Premium Quality Cocoa

## About AbsorGel® Max

AbsorGel Max-X is a desiccant made in Sweden, part of AbsorGel range of desiccants.

- **High absorption capacity:** AbsorGel Max has a high absorption capacity. It reaches ~ 250% in average field conditions, a capacity that can get over 320% in shipments with extremely demanding conditions; whereas in climate chambers AbsorGel® can absorb up to 400%.
- **Minimized risk of leakage:** AbsorGel desiccants contains an optimised mix of 94% pure calcium chloride and starch, so the absorbed moisture is bounded into a gel. Permeable surface is made of Dupont™ Tyvek® to minimize the risk of leakage.
- **Compact desiccant:** with a very compact design, it remains very close to the ceiling once installed, which makes it a suitable choice when the cargo is high loaded to the container ceilings and walls, like in cocoa beans' shipments.
- **Dual installation mode:** it can be installed vertically or horizontally. The vertical installation is very easy thanks to the provided accessories. The hook is included and preinstalled in the desiccant.
- **Ease of installation:** a person can install the desiccant using one AbsorStick™ included on the boxes without the need of a ladder, resulting on a fast and safe installation.
- **Approved to use in transportation of food:** the outer material is in conformity with Regulation (EC) No 1935/2004, (EC) No 2023/2006, Commission Regulation (EU) No 10/2011. It is approved to use in the transportation of food products if installed and used correctly.
- **Cocoa expert advice provided:** experts in moisture damage prevention during cocoa transport will guide you and advise you to effectively protect your cocoa cargo.



ABSORGEL® MAX ( PRODUCT PRINT CAN DIFFER)



NEW ABSORGEL MAX -X IN THE CONTAINER



Vertical installation



Horizontal installation



## Dimensioning recommendations

The following recommendations are based on the minimum 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.

These requirements are also the minimum demanded by most insurance companies and usually are enough for a shipment under normal conditions.

A higher level of protection is often necessary to protect cargo during unexpected situations such as extended transfer times, higher evaporation from the beans, or higher levels of moisture in the air due to loading containers in wet conditions.

Therefore, Absortech advises a higher level of protection. Absortech recommendations are based on own tests made together with leading stakeholders from the cocoa industry.



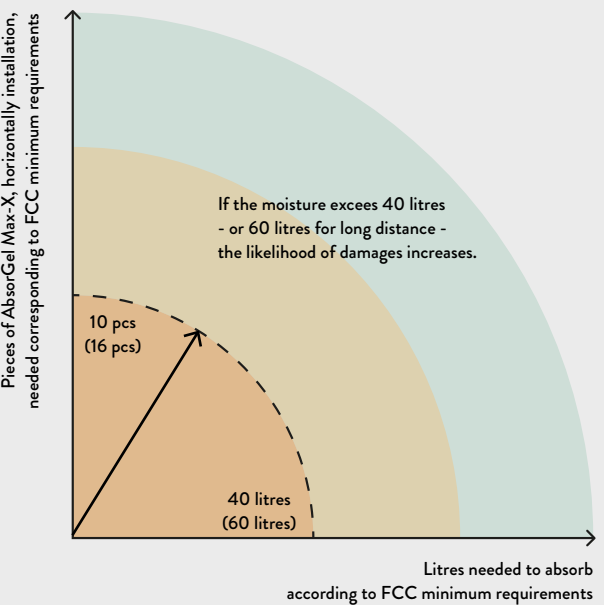
## Absortech recommendation based on FCC guidelines for shipment of coca beans in containers

UNITS TO INSTALL	SHORT DISTANCE	LONG DISTANCE
<b>VERTICAL INSTALLATION (INSTALLED IN LASHING RINGS)</b>		
ABSORGEL MAX - X 1,5 KG, CO <sub>2</sub> NEUTRAL	11 PCS	17 PCS
<b>HORIZONTAL INSTALLATION (INSTALLED ON TOP OF CARGO)</b>		
ABSORGEL MAX - X 1,5 KG, CO <sub>2</sub> NEUTRAL	10 PCS	16 PCS

The quantity of kg 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.

As illustrated below, a higher need of absorption (caused by e.g. extended journey time caused by congestion or higher initial moisture levels in beans) may cause moisture damages.

## Meaning of minimum requirements for a 40ft, short distance (long distance)



## Absortech: Committed to Sustainability

At Absortech Group, we are committed to base our operations on sustainable principles and help businesses to implement sustainable solutions to prevent moisture damage. Continuously, we invest to improve the performance of our desiccants and to reduce the carbon footprint derived from its production and sourcing, reengineering different desiccant parts and sourcing new raw materials, such as recycled plastic with respect to the environment. Sustainability is seamlessly integrated in all our operations, from people and management to our solutions and products, and it is one of our main decision drivers.

- Our group has a globally certified management system ISO 9001 and ISO 14001.
- Absortech holds a strong Code of Conduct based on our own Group Policy, the UN Declaration of Human Rights, the ILO Principles of Rights at Work, the OECD Guidelines for Multi-national Enterprises, and the UN Global Compact.

We aim to reduce the impact on society, the economy, and the environment through an optimized moisture control. Our process Peace of Moisture Mind® is made of proven concepts used to lower the amount of moisture in the customer's supply chain, avoiding the waste of resources, and thereby minimising the need for protection, leading to a reduction on the overall carbon footprint.

### What does carbon neutral mean?

It means net zero carbon emissions. The AbsorGel® container desiccants range is carbon neutral because the overall emissions of the sourcing and production of the product are equal to zero after offsetting.

Absortech has chosen suppliers and resources with the lowest environmental impact and carbon footprint. However, some carbon emissions are unavoidable. Therefore, we offset the remaining carbon emissions, via Gold Standard projects of Sustainable development.







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://absortech.com)



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