

Prevent Moisture Damage FOR SHIPMENTS OF SHELLED PEANUTS





CHALLENGE: MOISTURE

Shelled Peanuts, or groundnut, are often extremely susceptible to moisture damage during transport. Exposure to excess moisture, especially liquid water in the form of condensation, can saturate the nuts and the outer packaging, diminishing the peanuts quality and value.

The Food and Agriculture Organization (FAO) of the United Nations estimates that 25 percent of the world's food crops are affected by mold-causing mycotoxins, including aflatoxins, cancer-causing poisons produced by certain fungi in or on foods and feeds. Because molding can cause serious health problems, shipments arriving with signs of mold can result in costly rejects. By removing enough moisture from the air, the dew point temperature (the temperature at which condensation begins to form) can be lowered. This avoids condensation that may lead to "container rain."

Intermodal shipments of shelled peanuts can be subject to container rain. Day-to-night temperature fluctuations, en-route delays, high water content in the peanuts or dunnage, or containers with wood floors may trap ambient moisture inside the shipping container. This moisture condenses, causing a raining effect—container rain—thus damaging the peanut shipment.

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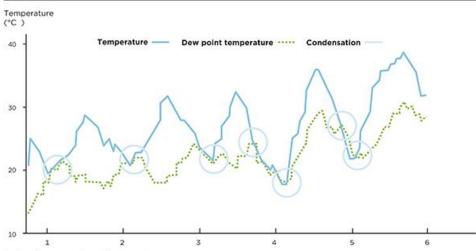
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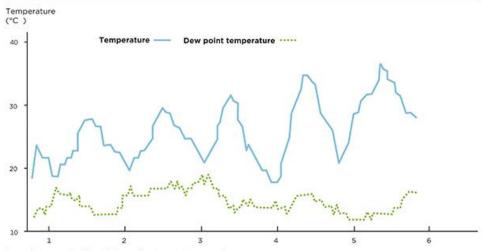
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TRANSPORT WITHOUT DEW POINT CONTROL



Condensation occurs when surface temperature and dew point temperature are equal.

TRANSPORT WITH DEW POINT CONTROL



Dew point temperature is kept below surface temperature, preventing condensation and moisture damage.

CONTAINER DRI® II

SOLUTION: CONTAINER DRI® II

Container Dri® II protects shelled peanut shipments from the damaging effects of moisture from start to finish, through all temperature ranges and relative humidity variances, by aggressively absorbing the moisture from the air, inside the container, and trapping it as a thick, no-spill, gel.

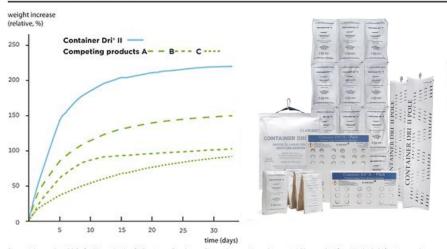
Container Dri II has already enjoyed remarkable success in the seafreight transportation of cocoa beans by providing the highest moisture absorption of any calcium chloride—based product, easily addressing the 65 percent or higher loading of calcium chloride recommended in the Federation of Cocoa Commerce Ltd. (FCC) guidelines for shipment of cocoa beans in containers.

Container Dri II also carries the Clariant EcoTain® label for products with outstanding sustainability advantages.

Container Dri II is offered in several configurations for different shipment needs and modes of transport. It is available through a global network of manufacturing sites and sales.

To learn more, visit www.clariant.com/container-dri

COMPARISON OF CONTAINER DRI* II PERFORMANCE TO OTHER DRYING AGENTS



Source: Johannes Petzold, Stefan Wiener (Institut für Beratung – Forschung – Systemplanung – Verpackungsentwicklung und prüfung, Hochschule für Angewandte Wissenschaften Hamburg University of Forschaften Hamburg University of Forschaften Hamburg University of Applied Sciences] F+EProjekt – Prüfbericht 6 Containertrocknungssysteme (16.04.2010), p. 9

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BENEFITS



Meets FCC Guideline Recommendation for Shipments of Cocoa Beans in Containers



CLARIANT ECOTAIN®
Distinction in Sustainability



Recommended by The World Food Programme (WFP) and The U.S. Agency for International Development (USAID) in Container Loading Specification

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Safe for direct use with food products



Best performance in the market



Cost-effective; more absorption with less desiccant



Dimeythyl Fumarate Free (DMF) – Non-Toxic No SVHC (Substances of very high concern)



Safe and easy to handle



Dispose with normal industrial waste

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