

Protocol for Applying Desiccant and Fiberboard Sheeting

I. MATERIALS

A. Fiberboard sheeting - specifications

1. Single wall thick
2. Weighs 3.7lbs for 4x8 sheet

B. Desiccant – specifications

1. Calcium chloride based
2. Able to absorb more than 200 percent its weight
3. Complies with FDA and EPA regulations for food safety, environmental safety, and non-toxic disposal

II. MATERIAL APPLICATION

A. Objectives

1. Fiberboard should be placed to prevent contact between the container walls or floor and the commodity.
2. Desiccant should be placed in the area with the greatest concentration of moisture vapor, therefore the following two options are available:

B. Option 1 – Placement of desiccant on container walls

1. Seal all passive container vents with duct-tape.
2. Cover floor of container with fiberboard.
3. Place fiberboard along all walls as high as the commodity, but approximately 8 inches below the container ceiling.
4. Place fiberboard sheeting on top tier of commodities after they are loaded.
5. Affix desiccant horizontally along each container wall at the top, in the 8 inches between the container ceiling and the fiberboard sheeting.
6. Desiccant should be evenly spaced around the container walls.

C. Option 2 – Placement of desiccant on fiberboard sheeting

1. Seal all passive container vents with duct-tape.
2. Cover floor of container with fiberboard.
3. Place fiberboard along all walls at least as high as the commodity.
4. Affix desiccant to fiberboard for the top of the commodity before placing it in the container.
5. Desiccant should be evenly spaced over the fiberboard sheet or sheets.
6. Slide fiberboard with desiccant facing up over the top tier of the commodity.

III. MISCELLANEOUS

A. Excess desiccant

1. If there is any desiccant left over after all containers are stuffed, place the remainder back in the plastic bag it came in and tie so that the bag is airtight to prevent moisture contact with the desiccant during storage.

IV. MONITORING

- A. If a data logger/moisture monitor is included in the shipment, a PVO representative will retrieve the data logger/ moisture monitor from the indicated container during discharge at foreign port and return to supplier.
- B. During discharge the PVO representative will survey sample containers as indicated, including information regarding:
 1. The conditions of containers, fiber board and desiccant
 2. The condition of commodities and their moisture level
 3. Damage to containers, bags, desiccant bags and fiber board
 4. Provide digital photos of commodities when possible
- C. PVO surveys will notify USAID/Washington of findings via email.

V. DISPOSAL

- A. A licensed contractor or carrier should dispose of desiccant according to country regulations.
 1. Given that desiccant (Calcium chloride) is covered under 21 CFR 172.892 as Food Starch-Modified, it can be disposed with regular waste.