

Desiccant bag for the protection against humidity during transport in containers

DRY GEL bags and chains

Moisture can cause different damages to goods shipped in metallic containers.

High quantity of water vapour can get into the container from outside during sea transport or when containers are stored in maritime terminals. Moisture can be released from hygroscopic materials used to pack the goods (i.e. wood, cardboard box).

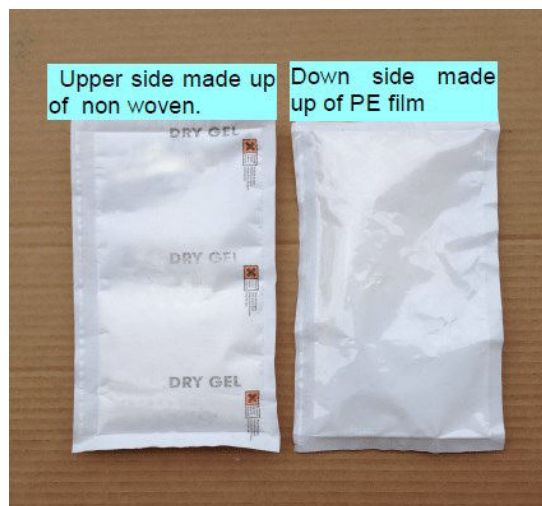
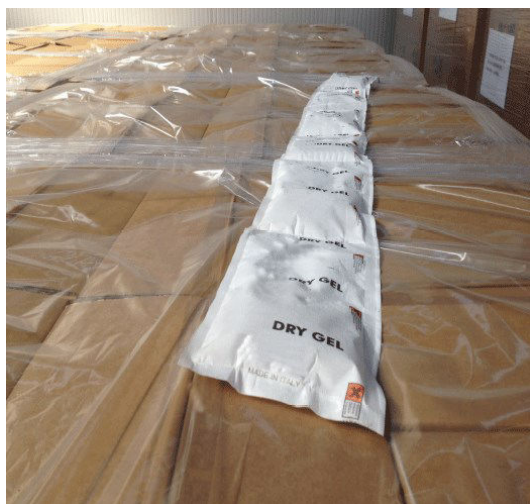
During the night the temperature decreases below the Dew Point and causes condensation of big quantities of water which damages goods and packaging. "Rain effect" is the consequence of the condensation of the air humidity when temperature decreases.

Description : DRY GEL chain and bag for containers

The product can be supplied in chain (6 desiccant bags in chain or in singular bag).

Upper side of the bag is made up of a non woven water vapour permeable/water proof.

Down side of the bag is made up of white PE film.



Composition of the DRY GEL bag

Desiccant bag contains a mixture of Calcium Chloride (CAS n°10043-52-4) and a natural gelling agent. The non woven is made up of PE/PET.

During the standard use it is not foreseen the direct contact between the users and the desiccant mixture contained inside the desiccant bag. In case of contact, wash your hands and avoid direct contact with eyes. For more information see the Matériel Safety Data Sheet.

DRY GEL TYPES—PERFORMANCES—QUANTITY PER CONTAINERS

Types	Dimensions	Grams of water moisture absorbed per bag or chain	Standard quantity per container	
			20 feet	40 feet
1 bag x 125g	Width : 14 cm Length : 23 cm	Min : 300g at 85% RH - 30°C Static test Final gross weight : 425g	33 bags	66 bags
		Min : 187g Alternating climate conditions 20°C/90% RH 40°C/60% RH Final gross weight : 312g		
Chain with 6 bags Each bag 125g	Width : 14 cm Length : 23 cm	Min : 1800g at 85% RH - 30°C Static test Final gross weight : 2550g	6 Chains	12 Chains
		Min : 1122g Alternating climate conditions 20°C/90% RH 40°C/60% RH Final gross weight : 1872g		

Alternating test conditions for 6 weeks: climatic chamber / 20°C/90% RH for 8 hours, change of temperature and humidity for 6 hours to reach 40°C/60% RH, stop of the given values (40°C/60% RH) for 2 hours, change of temperature and humidity for 6 hours to reach 20°C/90% RH, stop of the given values (20°C/90% RH) for 8 hours.

Optionals: if requested the product can be provided with a bi-adhesive to fix it to the packaging surfaces.



Quantity of bag to be used: In standard conditions, practical experiences suggest to put the number of bags/chains described in the above table.

Users can modify the quantity of bags according to the destination, to the material transported and to the environmental conditions during the loading of the material into the container.

The **packaging** of the products is studied to give the standard dosage.

Desiccant bag 125g : 2x33 pc / 64 pc per box - 40 boxes per pallet

Chain with 6 bags : 12 chains per box - 40 boxes per pallet

Speed of absorption and performance: when exposed at 90% RH and 25°C in climatic chamber, a DRY GEL bag absorbs minimum 200 grams of water vapour in 24 hours.

The desiccant mixture has a considerable water vapour adsorption capacity. The non woven used to produce the desiccant bag has a good water vapour permeability to give enough speed of adsorption in every climatic conditions. The speed of adsorption is very important when there are fast changes of temperature/humidity, and just after the container loading.

Thanks to the specific action of the calcium chloride, DRY GEL bag increases the absorption performance only when the relative humidity exceeds the 40%, consequently the bag maintains the most part of the performance to protect the goods for long time during the transport (for 30 days and more).

USE OF THE PRODUCT:

Based on the technical characteristics, desiccant bag for container can be used as “secondary or tertiary packaging” of every types of goods. Avoid the direct contact with metallic surfaces and machinery.

Desiccant bags can be placed on the goods .



DRY GEL bag can be used to protect packed food because the packaging of the food avoids the direct contact with the desiccant bag. When foods are loaded in bulk, desiccant bags can be separated using a “functional barrier” (i.e. PE Foil) to avoid any possible or foreseeable direct contact between "desiccant" and food .

Under the above conditions of use, desiccant bags do not transfer constituents to food in quantities which could:

- a) damage human health
- b) bring about an unacceptable change in the composition of the food
- c) bring about deterioration in the organoleptic characteristics thereof.

In conformity with article 3 of the Regulation 1935/2004.

STORAGE

The packaging made up in PE protects the product against humidity during the storage time.

Shelf life: We suggest to use the product before 2 years.

The information given is offered in good faith, but without guarantee.