

CLAY PACK - PRODUCT DATA SHEET

Description and uses

CLAY PACK is a strongly recommended humidity protection material to be used for the humidity protection of materials in enclosed areas. The greatest advantage of CLAY PACK is that the clay inside the package is a 100% natural mineral completely free of any chemical additives. CLAY PACK is produced using high quality pure Ca-montmorillonite clay and strong nonwoven non-dusting packing material. Either the adsorbent capacity of the clay and the characteristics of the packing material are carefully selected to compile with the DIN 55473 and MILD3464 standards.

CLAY – PACK can be successfully used for the protection of electronic parts, foundry parts, grey/black iron products, canned food, edible liquid bottles and etc.

Bags of natural clay (bentonite) in non-woven bags, dust-proof according to DIN 55473, can be re-generated many times at 110°C. Bentonite is a non-poisonous natural mineral. DESI PAK bags are approved for packing of food and pharmaceuticals (also FDA-approved).

Bentonite can be used for drying up to 50°C. For transports to tropical regions silica gel should be preferred. The vapor uptake of bentonite is similar to silica gel up to an equilibrium moisture content of 40% RH. Above 40% RH, silica gel performs better than bentonite.

Performance Features

Clay Characteristics

The clay is a carefully selected Ca-Montmorillonite, without any chemical additives and shows high adsorption performance in various relative humidity values.

Absorption capacity at 23 +/- 2 °C,

20% relative humidity - 8,5% min.

40% relative humidity - 16% min.

80% relative humidity - 22% min.

Packing Material

The packing material is a specially produced nonwoven material showing non-dusting properties and performing excellent strength against various forces such as droptests, or tearing tests.

PACKING

The necessary amount of desiccant bags can be calculated if you use a vapour barrier foil with known characteristics and if all edges are well sealed: For HDPE 0,2 mm, you should calculate with a vapour permeation of 0,4 g/m²/day for moderate climate and of 2,0 g/m²/day for tropical climates.

For aluminium barrier film you can calculate with 0,1 g/m²/day regardless the climate. If your object is too wet when packed you have to add extra bags.

TRANSPORT & HANDLING

Packed products should be kept always in airtight medium in order to avoid and prevent water vapour adsorption of the product before actual use.

RE-CONDITIONING

Re-generation can be done in any conventional household oven at 110°C, for 2 - 4 h. Fan ovens are ideal for this purpose. To check if your bags still release vapour place a hot bag on a cold mirror or cold shiny metal plate. If the bag still releases vapour there will be dew on the mirror immediately. Once the bags are cold you also can check with the humidity indicator strip 8% RH delivered along with the bags.

General Notes:

The information in this publications reflects our own average findings and comments for our products however the use of the product may vary according to the field of application and the buyer is solely responsible for the application, use and reprocessing of the material.