

# ALOE JAUMAVE, S.A DE C.V.

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## Freeze Drying Process

Freeze drying means to freeze the liquid material that contains water and then sublimate the vapor under vacuum condition, and the active contents of the material are still left in the solid. In order to improve the sublimating speed and shorten drying time, it has to heat the frozen solid. The whole process of heating and drying should be done under a lower temperature. Normally the working temperature is under 0° C.

### Characteristics

1. Under a lower temperature, the active contents of the material will not change its shape, color, taste and nutritional elements are kept well, so it can be applied to treat the thermal sensitive materials, such as protein and microorganism materials.
2. Drying at low temperature, the materials' losses of volatile components are quite small.
3. Frozen in drying process, the growth of microorganisms and the action of enzyme cannot work. Therefore, it can guarantee the materials by keeping its original characteristics.
4. Drying under the frozen conditions, it will not change the materials in size and original structures.
5. The dried materials are loose as sponge. It can be rapidly dissolved in water and reverted to the original characteristics.
6. Drying under the vacuum condition with little oxygen can avoid the active contents from oxidation.
7. Drying process can remove 94%-99% water content, so the dried aloe materials will preserve a longer time without degeneration.