

Humidity Control for Super Markets

A Super market is a place where a large retail market that sells food and other household goods and that is usually operated on a self-service basis

Effects of Uncontrolled Humidity

Supermarket faces some unique and diverse conditions while meeting different demands of different departments under one ceiling. These issues are high humidity, temperature control, people movement and fresh air.

If the humidity level is too high in a supermarket, then major problems are of moisture condensation on cold surface and frost formation on evaporator coils / refrigerated cases / frozen foods packets which results in turning shoppers off.

Also, condensation on freezer glass cabinets obstructs the view and make it hard for clients to select the frozen food.

High humidity levels results in mould and mildew issues along with damp uncomfortable environment for customers and employees..

**Causes of Uncontrolled Humidity**

Supermarkets witness high level of humidity due to

- Large amount of human movement and thus requirement of fresh air to neutralize the high levels of CO₂, which is a major source of moisture.
- Presence of large amount of organic matter (fruits & vegetables) releasing moisture in the atmosphere.

General Recommendation

Ideally store should be maintained around dew-point 12°C at relative humidity of 45-50% RH. Desiccant dehumidification helps supermarkets to eliminate frost build up on frozen foods, freezer cabinets and cabinet doors. This process significantly cut down electricity consumption used by conventional refrigeration to offset the latent load while providing a more comfortable shopping environment.

Bry-Air Solution

Bry-Air provides the BRYCOOL range of desiccant + refrigeration base dehumidifier for all such requirements at supermarkets. With Dessicant Based dehumidifier ,the incoming fresh air should be dehumidified at the level where it can maintain the Dew Point of air at 12°C after mixing with the return air from inside area.