

Mold Control on Alvaforms



Alvaforms are wrapped by layers of linen and rib fabrics for the application of shell covering.

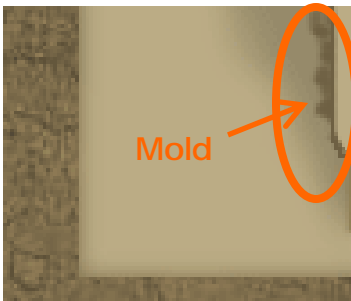
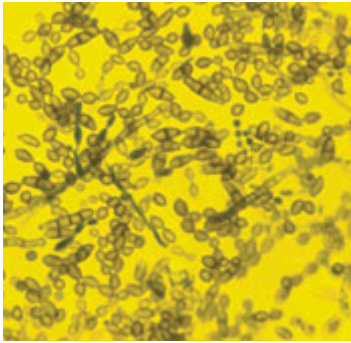
The fabric will easily absorb the moisture in the air when the Alvaform exposes in the **wet** and **damp** environment, therefore, prohibiting the Alvaform from molding and the growth of mildew is **IMPORTANT**

This manual provided by *AlvaProducts* illustrates the care of the Alvaform for clients.

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Introduction of Molding:



Molds produce tiny spores to reproduce. Mold spores waft through the indoor and outdoor air continually. When mold spores land on a damp spot indoors, they may begin growing and digesting whatever they are growing on in order to survive. There are molds that can grow on wood, paper, carpet, and foods. When excessive moisture or water accumulates indoors, mold growth will often occur, particularly if the moisture problem remains undiscovered or un-addressed



There is *NO* practical way to eliminate all molds and mold spores in the indoor environment; the way to control indoor mold growth is to **CONTROL MOISTURE**

Mold Cleanup:

Respond **PROMPTLY** when you see signs of moisture and/or mold with the following procedures:



1

Use **dry** cloth to clean up the molding areas.



Never use **WET** cloth! It will add moisture and encourage molding.

2

Dry water damaged areas, and get rid of excess water or moisture **within 24-48 hours** to prevent mold growth.



3

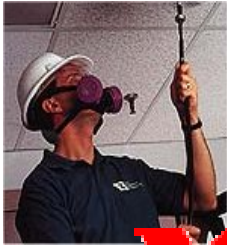
Accelerate drying process with fans.



4

Reduce ambient humidity levels with dehumidifier.

Mold Cleanup:



5

Commercial mildew inhibitors are available in hardware and paint stores. In severe cases, these inhibitors may prove to be effective



Recommendation:

Since strong chemicals are used, read the label instructions carefully to see what the inhibitors can do and how they can be used safely.



Caution:

Do **NOT** attempt using alcohol/ bleach to clean up the molds or mildew.

Moisture Control:

Client may experience different moisture control approaches due to various geographically and climatically factors:

A *Cold and Humid Region*



Recommendations:

- Use of dehumidifier
- Use of heater - portable and compact heater will conserve energy

B *Cold and Dry Region*



Recommendation:

- Use of ventilated fan - increase ventilation to reduce moisture level in air

C *Hot and Humid Region*



Recommendations:

- Use of dehumidifier
- Use of air conditioner - remove excess moisture from the air

D *Hot and Dry Region*



Recommendation:

- **DO NOT** use evaporative cooler – it increases humidity in the air

Sources of Excess Moisture:

There are several sources that may cause *excess* moisture in the air which the client should pay attentions to :



Windows



Overuse of a humidifier



Exterior walls



Indoor plants



Long rain shower
outside

Mold Prevention – Design Studio:

If the Alvaform stores in the **DESIGN STUDIO**, which is a tight, air-conditioned, well-lighted indoor room, our recommendations on keeping the interior glass warmer to reduce condensation of moisture are the followings:

1



Install storm windows

2



Apply caulking around windows



Recommendations:

Desiccants, which are materials such as silica gel or alumina that absorb up to half of their weight in moisture, should be used in small, enclosed areas listed below where temperature and humidity cannot be controlled by air conditioning or dehumidification.

- Areas within cabinets
- Closets
- Behind draperies
- Lockers



Children should not be able to reach desiccants as ingestion may be dangerous

Mold Prevention – Warehouse:

If the Alvaform stores in the **WAREHOUSE**, the first thing is to identify which type of warehouse the client owns.



General warehouse:

For storage, receiving and shipping, packing, office space, etc.



Controlled humidity warehouse:

Humidity can be controlled and maintained within the warehouse



Recommendation:

Use of **temperature/relative humidity monitoring systems** to reduce the chance of molding on the Alvaform. Range of temperature and humidity will be discussed further in the section "*Mold Prevention – Favorable Temperature*" and "*Mold Prevention-Favorable Humidity*".



Caution:

When **plastic wrap** is used for wrapping or protecting Alvaform for storing purpose, **desiccants or moisture-proof paper** is recommended to put inside the wrap as the moisture trapped may lead molding.



Tip:

Reduce the potential for condensation on cold surfaces by adding insulation.

Mold Prevention – Favorable Temperature for Molding :

The optimal growth temperature range for majority of molds is **77°F to 88°F (20°C to 30°C)**

Extreme temperature changes is **NOT** recommended for the storage as it will cause damage in fabrics, especially in **warehouse**. Ambient temperatures can still cause mold to develop, hence, controlling the **humidity** is more important for both places in design studio and warehouse.



Recommended Temperature Range for Clients:

Summer:
75°F (23°C)

Winter:
70°F (21°C)



Fact:

Air conditioning will reduce the interior temperature of room, *however*, the temperature may not be uniformly low enough to stop mildew growth if the air is fairly humid.

Mold Prevention – Favorable Humidity for Molding:

Relative humidity **above 70%** can easily lead to mold growth.



Fact:

$$\text{Relative Humidity} = \frac{\text{Partial pressure of the actual water vapor in the air}}{\text{Pressure of totally saturated air at the same temperature}}$$

Basically, the above formula demonstrates the warm air can hold more moisture than cool air.



Recommended Relative Humidity Level for Clients:

Summer:
50-55%

Winter:
30-35%



Recommendation:

Use a humidity indicator to measure the relative humidity



Caution:

If the RH (Relative Humidity) shows **MORE THAN 60%** it is time to call in professional help or at least take measures to reduce the humidity.

Mold Prevention – Other Factors for Molding:

Air Circulation:

Air circulation helps control moisture levels through evaporation.



Recommendations:

The followings can be installed in localized areas to improve air circulation, for example in *design studio*:

- Portable dehumidifiers
- Fan

Cleanness:

Keeping things clean in the storage area is also important, as the dirt may provide a ready source of nutrients for mildew



Caution:

The following sources where mildew is likely to grow should be kept clean:

- Walls
- Closets
- Basements
- Clothing and other textiles