

#### Installation Environment

# **Controlled Climate Conditions**

Modern flooring is designed for interior use in controlled climate conditions. It is important that normal room conditions are maintained

Remedy: Make sure windows and doors are installed prior to installation. Make sure there is a functional HVAC system up and operating, prior to, during, and after installation. If your area has limited climate control, choose a flooring product that is less affected by climate conditions.

# Acclimation

Acclimation is bringing the products being installed up to the temperature of the environment that they are going to be installed in. Going from hot to cold, or cold to hot conditions can, and usually does, result in product failures. Common: Temperature 65-80°F, 35-55% RH, surface temp 65-80°F.

Remedy: Make sure jobsite climate conditions are controlled, and that material is stored in that climate for the period of time it takes to adjust to that climate. Choose products less susceptible to climate changes.

#### Moisture

Many floorcovering products are affected by subfloor moisture. From loss of adhesive bond to edges curling up. Excessive moisture must be reduced. This can include moisture from the substrate and topical moisture. Common: 80% RH, 10lbs CA

Remedy: Test by checking the crawl space for plastic sheeting, use a 6mil poly sheet under the flooring, chose a floorcovering less susceptible. Moisture testing equipment can be used to measure before installation.

# Mix Products & Visually Inspect

It is important to work out of several cartons at a time. This helps avoid excessive pattern repeat. Visually inspect installed material from different angles in suitable lighting.

Remedy: Work out of several cartons, mix product and inspect in suitable lighting.



This general information is provided by







#### **Read & Follow the Installation Instructions**

Read all the instructions prior to starting your project. Planning ahead can avoid flooring failures. The product manufacturer knows their product tolerances better than the installer. Products can vary wildly. When products change and evolve, an installer needs to change also.

#### Installation Procedures

#### **Floor Flatness**

Most flooring products have specific tolerances to floor flatness. A simple straightedge is the front line for defense. Look for depressions and humps. This unevenness can result in movement at the seams. Movement can result in flooring gapping and uneven surfaces. Common: 3/16" in 10', 1/8" in 6'.

Remedy: Check for floor flatness. Use a straightedge, string or laser. Grind down high spots, fill in low spots with an approved substrate.

## Porosity

Porosity is important to determine. Some adhesives will not bond to a non-porous substrate. The trowel's notch and adhesive coverage will depend on porosity. A highly porous substrate will require more adhesive and often requires sealing to reduce porosity.

Remedy: A porosity test takes only a few seconds and is free. Drop several dime sized drops of water on the substrate. If they bead up and do not penetrate within a couple minutes, the surface is non-porous.

Note: Many people assume all concrete is porous. It is not. Often the finishing or applied sealers will create a non-porous surface.



#### **Adhesive & Trowel**

#### **Correct Adhesive**

The right adhesive is critical. Using the wrong adhesive can result in catastrophic failure. In some cases the wrong adhesive will not simply "not bond" but will ruin the flooring. In some cases the adhesive needs to be strong enough to hold the product in place.

Remedy: Check the installation instructions every time to make sure you choose the correct adhesive.

# **Open Time**

Most adhesives have a manufacturer recommended open time; in other words, how long the adhesive can remain open and still work.

Remedy: Follow the manufacturers recommendations.

## **Flash Time**

Flash time is the time it takes for the moisture to dissipate from the adhesive.

Remedy: Follow the manufacturers recommendations. Place your finger lightly into the adhesive to see if it transfers to your finger or there is no transfer. Different adhesives have different requirements for bonding.

# **Correct Trowel**

A trowel is a metering device for applying adhesive. The notches are designed by the adhesive manufacturer to provide the correct amount and correct displacement of the adhesive. Trowel notches can be square, V-Shape or rounded.

Remedy: Follow the adhesive manufacturers recommendation, pay attention to spacing, depth and width of notch.

# **Notch Definition**

Since trowels are drug across the substrate, the notches can become worn down. When worn down they are no longer metering on the correct amount of adhesive.

Remedy: Check trowel notches often, replace or re-notch worn down trowels.



# Rolling

Most glue down installations require that they be rolled soon after installation to insure a proper bond.

Remedy: Roll with the recommended weight roller. Roll in several directions. Note: Often it is required to roll a second time a few hours later.

