

# TIPS ON COLD -WEATHER TILING

Now that we are over the hot weather with it's problems of adhesives drying too fast and grout not being cured properly we are approaching another time of completely different problems which require some thought on the part of the Tiler and Stone Layer.

**REMEMBER** concrete slabs laid on ground get colder and hold the cold longer than the overnight temperature.

Understanding the effects that colder temperatures have on your laying and grouting systems will greatly assist in planning for a successful installation.

## **DON'T LEAVE YOUR MATERIALS OUT IN THE COLD**

Even before the installation begins, make sure there is a warm location at the job-site to store materials. This includes the tile adhesive and grouting materials. Keeping materials at job-site temperatures prior to application will greatly reduce down time needed to re-acclimate products to the ideal working conditions. Low temperatures will significantly slow the curing process of cement based materials. This is also true for organic adhesives which rely on the evaporation of water or a solvent to achieve a cure. A fresh mortar application that is not properly cured before being subjected to freezing temperatures or rain will be sub standard.

This is because hydration was not allowed to occur. In severe circumstances Ice crystals may form and expand, causing the sand and cement to separate and ultimately destroy the strength of the mortar.

## **PROTECT,BUT WITH CAUTION**

To avoid this problem the installation can be protected with enclosures, windbreaks and temporary heating. In some instances, a quality fast-setting mortar may be effective to achieve stronger bonds quickly. When choosing temporary heaters, caution must be taken to avoid too rapid a cure. The use of electric (indirect) heat is recommended to reduce the chalking effect which results from a reaction of fresh mortar to the carbon dioxide by-product found through the use of fuel fired heaters. if a blower heater is used, make sure the tiled area directly in front of the heater does not experience a rapid dry-out.

## **PATIENCE IS A VIRTUE**

Epoxies are profoundly influenced by cold weather conditions. Remember, that epoxies are considered thermo-setting products. That is, when the components are mixed together, they rely on the heat that they generate to cure. In cooler temperatures, there would be a significant increase in the viscosity of the epoxy, making it difficult to work with. Cold weather always lessens the rate of cure which can extend open time, initial set, final set and final cure. Take this into consideration before allowing the installation to receive foot traffic or general use. In cold temperatures, grouting before the bonding material is fully set will cause tile movement, resulting in a bond failure. In temperatures below an average of 9° C the time allowed before grouting will be greatly extended. The tiles should be kept free from all traffic during this time and until the installation is completed. Although time constraints may tempt you to rush your installation, it is preferable to give the set tile enough time to cure as opposed to the alternative: TOTAL REPLACEMENT.

## **WORK SMARTER,NOT HARDER**

Tiling under cold weather conditions can be successful if you understand how cooler temperatures can affect the workability of the setting materials. If you are not sure on the proper procedures, contact your distributor or Morgan Ceramic Tile Adhesives.

Should you require any further information,  
please contact our Technical Team on 08 9441 6677 (Response within 24hours)  
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