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Desert Brand Installation & Application For Magnesium Oxychloride Flooring

TECHNICAL BULLETIN

Characteristics

Desert Brand Magnesium Oxychloride Flooring conforms to ASTM specifications. When installed as specified, it may be used as a walking surface for all types of interior and exterior decks and stairs. The following specifications describe the techniques, if maintained, which produce high quality and high strength flooring that could last for over 30 years.

Gauging Solution

Once the subfloor has been sufficiently prepared, as per our specifications, a premixed solution of magnesium chloride will be required for subsequent mixing with Desert Brand magnesium oxide dry powder. Gauge the solution to 22° baume plus or minus ½° (at 60° Fahrenheit) with a hydrometer. Under no circumstances should the strength of the solution vary from the above reading. The premixed solution must be allowed to cool, after gauging, before use.

Mixing

Mix Desert Brand magnesium oxide dry powder with the magnesium chloride solution to form a lump-free and smooth plastic consistency for application. The wet mix shall slump not more than 8". In no case shall additional sand or other dry ingredients be added to the composition in the field.

Mixing Instructions for Typical Four Bag Mix

- 1) In a clean 55 gallon drum, add flake magnesium chloride (hexahydrate) to clean water and stir thoroughly until completely dissolved (approximately 160 lbs. to 40 gals. of water). Adjust by the addition of flake or water to gauge to 22° Baume (at 60° Fahrenheit) and allow to cool.
- 2) Before turning plaster mixer on, add 1 bag of Desert Brand magnesium oxide dry powder to 12½ gallons of magnesium chloride premixed solution.
- 3) Turn mixer on and allow to run, while adding 3 additional bags for a maximum period of 5½ minutes or until lump free. Once properly mixed the material will be ready for immediate use. In no case shall the material be retempered for use by addition of premixed solution if it has become too stiff to be applied.

Note: Always completely discharge the mixer of material immediately after each mix. Do not allow residue from previous mix to mix with future batch. If mixer sets idle for more than 30 minutes, thoroughly clean mixer.

Application

Apply ½" to ⅝" of magnesite after complete preparation of the stairs and deck. Place and work wet mix so that it is forced around and under the wire mesh or metal lath. Screed it to present a straight, flat and true surface, maintaining proper slope for drainage. After spreading, material should be floated, troweled and finished to the desired texture. Coves, bases, and nosings are to be installed integrally with the flooring and the same specifications shall apply as if the mix were laid as flooring. Protect installation from floor traffic for a minimum of 6 to 8 hours. After which, and up to the first 24 hours following installation, place protective wood sheeting in those areas to be walked upon. In no circumstances shall heavy loads be allowed on the surface for the first seven days after installation.

Sealing

24 – 48 hours after installation, apply 2 coats of Desert Brand Sealer with 24 – 48 hours between coats. Reseal stairs and decks regularly for proper maintenance. Use abrasive materials on surfaces to avoid slips and falls.

Conditions of Working Area

In places where the floor is to be laid, the temperature shall not be less than 50°F and not more than 95°F and relative humidity should not be less than 40% until final set is attained. Protection shall be provided from direct dry wind and decking shall not be applied to excessively hot surfaces in direct sun. If low humidity is encountered, during application, humidification of the atmosphere in the working area will be necessary. This can be accomplished by applying and re-applying a light spray mist of water to the deck before final set is attained.

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