



Working Times for Gypsum Plaster

TERMINOLOGY:

- Set:** The condition reached by a cement passed, mortar or concrete when it has lost plasticity to an arbitrary degree; initial set refers to first stiffening; final set refers to attainment of significant rigidity. Green refers to final set, but damp.
- Open:** Aggregate in the plaster is exposed and not covered by the crême of the cementitious binder. Plaster is left “open” by floating with a float or sponge, as opposed to plaster being “closed” by a trowel.
- Dryout:** A state of partial set wherein less than complete crystallization of the gypsum has taken place due to the absence of sufficient water.
- Sweat-out:** Occurs only in gypsum plaster that is applied over an improperly dried basecoat. It is identified by damp, soft spots in gypsum that are darker in color than the surrounding areas of plaster.
- Retarder:** An admixture used to delay the setting action of plaster.

GYPSUM PLASTER BASECOAT:

When properly mixed and applied over a suitable substrate and with proper environmental conditions, gypsum plaster basecoats will have a set time of 2 to 4 hours. If conditions push the set time to more than 6 hours, a retarder should be used – use only products made specifically for altering the set of gypsum plaster. As soon as set occurs in the basecoat, ventilation and air circulation must be available to provide for the evaporation of excessive moisture.

GYPSUM PLASTER FINISH COAT:

Apply the finish coat over a basecoat which is slightly rough, “open” and partially dry. Applying plaster to an overly dry basecoat may result in the finish coat drying too rapidly; high suction of the dry basecoat will pull the moisture out of the finish leaving “dry-outs.” A finish coat applied over a wet basecoat can cause “sweat out.” The plaster will either lose or never acquire its structural integrity when “sweat out” occurs. These areas just be replaced with new material and be allowed to cure under proper conditions. When the “sweat out” condition has been allowed to remain uncorrected for more than 24–48 hours, a strong musty or sulfur smell may be noticed.

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