



Plaster Application: The Double-back Or Double-up Method

Questions frequently arise as to the adequacy of the double-back method of plaster application. In times past, we used to require a delay of at least 24 hours for curing of the scratch coat prior to application of the brown coat. However, with the technological improvements to plasters made from masonry (stucco) cements, this is no longer the case.

In fact, we now encourage the application of the brown coat as soon as the scratch coat becomes “thumb-print” hard. To test the readiness of the scratch coat, the plasterer merely touches his thumb to the fresh plaster. If he leaves a dimple, the plaster is not yet ready to carry the weight of the brown coat.

If he leaves a thumb print, it is.

We have found that applying the plaster at this point promotes the creation of a monolithic plaster system. The successive coats achieve a much greater bond to each other.

The double-back method is now generally considered the preferred method for application of plaster over solid bases (concrete, masonry, clay brick, stone and tile). It is important to note that the double-back method may not be appropriate for application over metal plaster bases as determined by the “set” condition (see below). The extra weight of the second coat in a much higher plastic state, due to a lack of absorption from the substrate as would occur over solid bases, may allow the plaster to slide and separate from the lath or, in the case of non-metallic lath, the lath may sag. That said, the double-back method can be used effectively over lath provided the scratch coat is given enough time to reach “thumb-print” hard.

The double-up method is identified in ASTM C 926 as follows:

3.2.11.5 *double-up coat*—the brown-coat plaster applied to the scratch coat plaster **before** [emphasis added] the scratch-coat plaster has set.

There is some confusion as to what is meant by “set” and “sufficient rigidity.” Actually, there is a subtle difference between the two. “Set” in this use, refers to the initial set of the plaster. This would be the “thumb-print hard” stage of the curing process. “Sufficiently rigid,” however, can be two different things. Sufficient rigidity may be achieved before initial set where plaster is direct-applied to a solid substrate. In the double-up or double-back process, the brown coat is applied “before” the initial set. This

is possible because of the absorption of the solid base. On the other hand, sufficient rigidity is not reached in plaster applied to non-absorptive plaster bases until the initial set point has been reached.

ASTM C 926 attempts to accommodate both conditions in the sections below:

X1.5.2.2 In order to provide more intimate contact and bond between coats and to reduce rapid water loss, the second coat should be applied as soon as the first coat is sufficiently rigid to resist cracking, the pressures of the second coat application, and the leveling process.

In fact, ASTM C 926 specifies that each coat may be applied *as soon as* the previous coat has reached sufficient rigidity:

7.8.2 Sufficient time between coats shall be allowed to permit each coat to cure or develop enough rigidity to resist cracking or other physical damage when the next coat is applied.

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