



Lath Over Concrete Block – A Bad Idea

The Florida Lath & Plaster Bureau discourages the use of lath over concrete masonry units (CMU) for a variety of reasons including water-resistance, durability, cracking and cost.

There are several issues that arise when applying lath to CMU that should be discussed. To begin with, ASTM C926, Section 6.2.3 recommends lath over CMU or concrete only as a last resort to facilitate bond where the base is either too smooth or contaminated to achieve bond without some sort of remedial action.

6.2.3 Where bond cannot be obtained by one or more of the methods in 6.2.2, a furred or self-furring metal plaster base shall be installed in accordance with Specification C 1063. Where metal or non-metallic plaster base is used in

areas where bond cannot be obtained by one or more of the methods in 6.2.2, accessories shall be installed in accordance with Specification C1063 or C1787 as appropriate to the product.

The language above clearly indicates that lath should be the last method attempted. For example, in renovation work, new stucco over an existing stucco wall may require lath.

This is due to the vast differential movement between solid bases (CMU, concrete, brick, stone) and metal lath and accessories. In addition, the use of metal plaster base systems incorporates many more point of penetration into the substrate as well as potential leak points at joints and terminations of accessories. Since most accessories are not required in direct-applied applications (stucco on block), there is also a great deal more sealant to be used and maintained annually. As far as durability of the system is concerned, direct-applied stucco will far outlast any metal system. While metal lath is galvanized, the galvanization coating is a self-sacrificial protection. This means that it begins to degrade the minute it is finished being produced. The galvanization will slow the oxidation process by years; but, it will eventually deteriorate even when totally encapsulated by the plaster. Direct-applied stucco, on the other hand, bonds to CMU as they are virtually the same material and may last for hundreds of years.

Cracking in direct-applied stucco can be sufficiently limited through proper installation and curing to prevent this occurrence. In fact, most full-depth cracks in stucco over CMU are the result of reflections from cracks in the CMU that are not repaired prior to plastering. Stair-step or settlement cracks need to be sealed with an elastic sealant prior to having the plaster applied. Cracks in the substrate will reflect through the stucco. Stucco does not have sufficient tensile capability to hold a building together. You will

definitely have more cracking issues with a lath system over CMU than you will with direct-applied stucco due to expansion and contraction of the metal plaster base system under Florida's hot sun.

The vast majority of water intrusion issues through a stuccoed wall on CMU occur due to a lack of or incorrect flashing and sealing around penetrations in the wall (windows, doors, conduits, dryer vents, electrical and plumbing elements). Yes, full-depth cracks can allow water to penetrate; but, these cracks are usually visible with a week of plastering and are easily repaired/sealed prior to priming and painting. Water does not really migrate through the stucco as proved by extensive testing at the Research Labs of NMCA (report attached). Water proofing really isn't necessary; but, if required, should be placed on the positive pressure side of the wall (the exterior).

Cost is also a factor. Stucco applied over a metal plaster system costs between 3 to 5 times that of direct-applied. There is 75% more stucco cement required for the additional thickness plus all the lath, accessories and fasteners and more than twice the labor. Direct-applied stucco eliminates the need for almost all accessories except terminations and control Joints where the masonry abuts a dissimilar material or where expansion joints occur in the substrate and to isolate building elements such as windows and doors. Most other accessories can be eliminated.

All in all, placing a metal or other plaster base system over CMU aggravates the issues; it does not solve them. As such, it should be avoided if at all possible.

For further information, contact In-Spex, LLC at www.in-spexllc.com or (407) 588-2561.