After applying stucco over concrete block, the joints of the block telegraph through. Why is this? How can it be avoided?
—J.W Orlando FL.

Several factors are involved in the telegraphing of CMU joints through a stucco job. First, the density and absorption of the block is different from that of the mortar used to join the blocks. If the block has not been stored properly, it may have gotten wet, which will affect its absorption (or “suction”). Telegraphing may occur because the mortar may have been mixed incorrectly. Or, the mix and the thickness and application method of the stucco may have been inadequate for the job.

As for the remedy, there are a couple schools of thought, naturally.

The traditional school of thought holds that visible block joints are essentially applicator error. The most likely scenario for the situation described above is trying to get away with too thin a layer of stucco, consisting of either a thin brown coat and a finish coat, or just a finish coat. Using soap in the mix, which alters the chemistry of the stucco and results in greater porosity, can compound the problem as well. This should do the trick: a properly mixed (one part cement, one-quarter to one-half parts lime, and three to four parts sand), half-inch thick brown coat, with either a traditional stucco finish coat (containing up to three times more lime) or a synthetic finish coat.

Mark Fowler of the Northwest Wall and Ceiling Bureau also points out that proper floating of the brown coat using a “shingle” float is crucial to a proper stucco job. The shingle float is a hard float made of cork, neoprene or hard rubber. Fowler explains that using a shingle float requires watching the brown coat carefully and floating it once the water in the mix dissipates, usually after an hour. This means following the sun as it passes over the drying surface and working the brown coat wherever it is ready—this requires developing an eye for the material’s drying properties, and much physical labor on the part of the plasterer.

As an easy way out is to use a “green” soft, sponge-type float, which holds water and allows the plasterer to start at one corner and proceed in a less random direction. The result, however, is a brown coat that is quite likely to be substandard.

The better-living-through-chemistry school of thought holds that acrylics are the answer. There are acrylic latex sealers that can be applied over the block, and acrylic latex additives for the cement mix. Applying a latex sealer over the block is pretty straightforward, although over—doing it might compromise the mechanical bond between the stucco and the block—this could result in bigger problems later on.

Properly used acrylic additives potentially improve the bond, the tensile strength, the flexural strength and the moisture resistance. However, fairly small quantities of the additive are required, and they absolutely must be thoroughly mixed. Also, such additives may foam up and result in air-entrainment, unless the right amount of the proper defoamer is used. Air-entrainment reduces the stucco’s strength and water resistance. None of this bodes well for those who have trouble with the standard mixture.

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