

Large & Heavy Tile Mortars (LHT)

The Ideal Solution
for Large Format Tile
and Stone Installations



Large format tile is an established, well-documented trend in the industry, and sizes are continuing to increase. Where $\geq 15"$ was once considered large, tile formats $\geq 23"$ are now considered large format, and stone manufacturers are also fabricating bigger, thicker, heavier stone tile to feed the demand. This explosion of tile sizes, densities, and compositions has created a need for technological advances in setting materials and the adoption of new installation methods that are best suited to these projects.



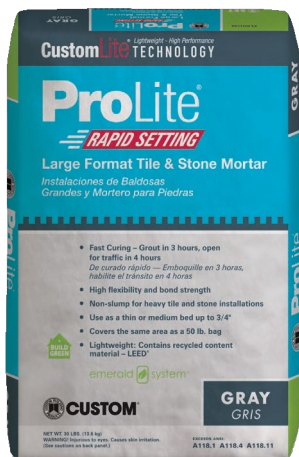
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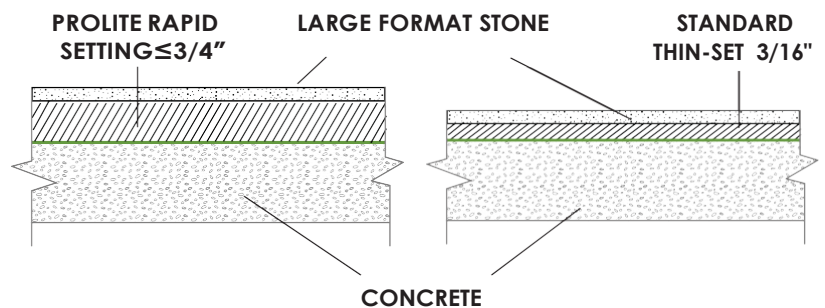
Technical White Paper

LARGE & HEAVY TILE MORTARS



A rapid setting, LHT mortar maintains its form while in its wet stage and during the curing process instead of shrinking, which would result in an uneven finished surface.

One of the most significant advancements is the use of Large & Heavy Tile mortars, which better support the size and weight of larger tiles than traditional thin-set mortars. While thin-set mortars have been popular and effective for standard tile and stone installations for many years now, a thin-set mortar bed is just 3/32" to 3/16" thick and as we get beyond the 15" format, substrates need to be much flatter to be used on these large tiles. A typical "flat" concrete surface specified to have less variation than $\leq 1/4"$ in 10', starts to show its imperfections when working with larger tile, and the minor dips found in all concrete slabs or wood sub-floors suddenly become a landscape of mountains and valleys when the tile size is $> 15"$. A thin-set bed is simply not engineered for such conditions and won't deliver the best results.



Created primarily for un-gauged stone and to keep floors flat during the installation, LHT mortars have been around for a few years, but are just now earning full appreciation as tile formats continue to increase. Mixed correctly, an LHT mortar will not slump when used up to 3/4" thick after the tile has been beat-in, supporting the weight of the large format tile or stone and compensating for the inevitable irregularities in the tile or substrate. Standard thin-set mortars are not formulated to hold up in an LHT application and will not hold form to support the weight of the tile; these formulas tend to shrink as they cure, causing an uneven surface from tile to tile, and is known as "lippage," an unwanted finish result.

With the introduction of ProLite Rapid Setting Large Format Tile & Stone Mortar, this lightweight, full coverage, LHT mortar provides the non-slump support and rapid setting cure times that firmly keeps tile in its place, answering many of the issues faced when setting large format tile.

About the Author

Steve Taylor was Director of Architecture and Technical Marketing for Custom Building Products and had more than 30 years of experience developing products for the construction industry. Steve was a member of the Tile Council of North America (TCNA), helping to determine proper tile installation methods and standards, including the simplification of tile installation processes which enable tile professionals to save time and money.



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