

CTU Online Anytime Module 2.3 – Setting Large Format and Heavy Tile

Key Takeaways

- Today's large format and heavy tiles present new challenges, requiring higher performing mortars.
- TCNA classifies LHT/LFT as a tile with any side 15" or longer.
 - These tiles require a flat substrate ($1/8"$ Δ in ten feet).
- As tiles get larger, cupping, warping and doming become more prevalent.
 - ANSI A137.1 outlines allowances for cupping and warping
- Pavers and natural stone tiles need LHT/LFT mortar to support weight and avoid slumping.
- Thin-set mortar should only be used from $1/32"$ to $1/4"$ thickness, after is tile embedded.
- LHT mortar can be used up to a $1/2"$ nominally; use most CUSTOM products up to $3/4"$.
 - LHT mortar helps to avoid slumping and lippage
- Lippage can be seen when tile edges are raised or depressed, creating an uneven surface.
- Pattern layouts in Large Format Tile can reduce lippage (especially in common 12" x 24" tiles and planks).
 - 50% offset (high chance of lippage)
 - 33% offset (substantially reduce possibility of lippage)
 - No offset (lowest chance for lippage)
- Medium bed mortars supported large tile and stone applications by utilizing larger aggregate particles.
 - LHT/LFT mortar was previously known as medium bed mortar.
- New technology is focused on rheology, better flow and hold. Product is easy to trowel and covers well.
- LHT/LFT Mortar will soon become an ANSI Standard.
- Versabond[®] LFT is an excellent product for setting large format and heavy tiles, especially on floors.
- Non-sag/non-slump mortars keep tiles from sliding down wall and speed installation in the process.
- CUSTOM ProLite[®] Premium Large Format Tile Mortar is ideal for:
 - ANSI A118.11 and A118.15 (including A118.1 and A118.4) requirements
 - Non-sag. Meets A118.15T (thixotropic) for vertical slip resistance
- MegaLite[®] Ultimate Crack Prevention Large Format Tile Mortar is for the most challenging applications.
 - 28-day porcelain tile shear up to 725 psi (28-day glazed wall tile shear up to 830 psi)
 - ANSI A118.11 and A118.15 (including A118.1 and A118.4)
 - Exteriors or other demanding locations with conditions like thermal cycling
 - Non-sag. Meets A118.15T (thixotropic) for vertical slip resistance

- Sand is the heaviest item in a bag of traditional mortar.
 - ProLite & MegaLite feature CustomLite® aggregate replacement technology to reduce weight
 - These Products are 40% lighter than traditional mortars (30 lb. bag vs. 50 lb. bag)
 - Both products are Build Green®, GreenGuard Gold® and contribute to LEED certification
 - Rapid setting versions of both mortars are available for fast-track projects.