

# Changes to the 2015 TCNA *Handbook* for Ceramic, Glass and Stone Tile Installation

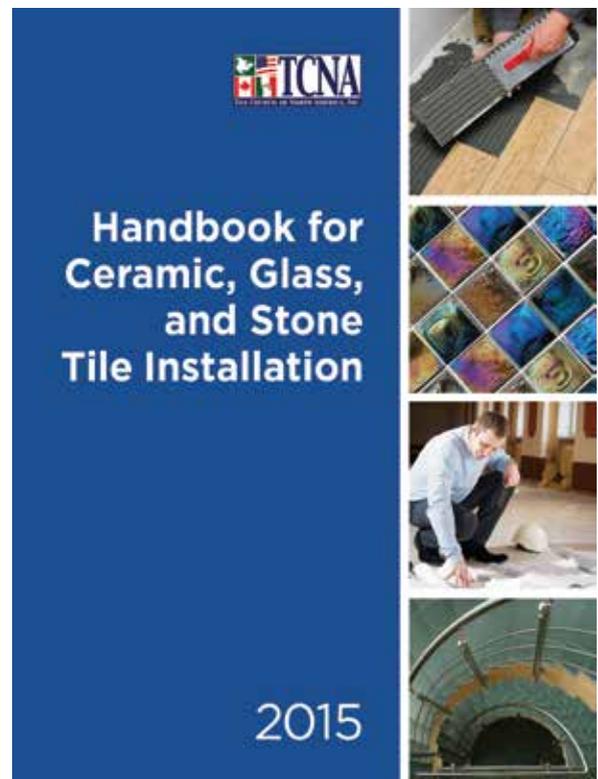
The latest edition of the *Handbook* will be released at Coverings 2015, with a much-anticipated change to language about mortars designed for large-format and heavy tiles

by Stephanie Samulski

For the 2015 Edition, the TCNA *Handbook* Committee approved eight new installation methods and several updates and clarifications to existing guidelines. This article addresses the change to language about mortars designed for large-format and heavy tiles. Previously and widely referred to as “medium bed mortars,” the 2015 *Handbook* has re-christened the product type as dry-set mortar for large and heavy tile, or LHT mortar. This change, within the Setting Materials Selection Guide, is especially relevant to tile contractors, who have been battling specifications that call for a “medium bed method” for setting tile, even though no such method exists, and calling for it reflects a misunderstanding of proper installation methods.

Judging from the way medium bed mortars have sometimes been used in specs, building design professionals who have mistakenly referenced a medium bed method thought a thick application of cementitious bonding mortar could be used to flatten and fix out-of-tolerance substrates, to form finish floor height transitions and to form slopes to drains. It's not difficult to see why. As tiles have grown larger and larger, the working properties of bonding mortars have been adapted to make larger tiles easier to set, primarily by reducing the slump factor so tile edges don't sink, and generally allowing for a slightly thicker layer of mortar. As a result, the mortars designed for setting larger tiles came to be known as medium bed mortars; a name incorrectly focused on the potentially thicker layer of adhesive as opposed to their real purpose: supporting the larger and heavier tiles being produced today.

The new section in the *Handbook* aims to clarify the misconception of a medium bed method by renaming mortars designed for setting large tiles and by more clearly explaining what these mortars are — and aren't — designed to do.



The new section, “Dry Set Mortar for Large and Heavy Tile (LHT Mortar)” has replaced the “Medium Bed Mortar” section that had been added to the *Handbook* in 2011. The new section for LHT mortar includes a “note to specifier”

section that restates the product limitations that the 2011-2014 versions included, that such mortars are “designed as direct bond adhesives and are not intended to be used in truing or leveling underlying substrates or the work of others” and that “medium bed mortar is a product, not an installation method.” The new section explains further, adding that “where substrate variation exceeds allowances, LHT mortar (formerly medium bed mortar) cannot be used to remedy such, because the application would exceed the limitations of the mortar.” It goes on to say that “project plans and specifications that call for or refer to setting tile by a ‘medium bed method’ or ‘large and heavy method’ or that call for the use of bonding mortar to level, flatten, or fill substrates or to create slopes or transitions between finish floor heights do not conform to tile industry standards or norms.”

Like the now-eliminated medium bed mortar definition, the LHT mortar definition relays the usefulness of the mortar type for setting large tiles — still defined as tiles with at least one side greater than 15 inches — and adds that “when setting such tiles, larger trowels are used and needed to apply enough bonding mortar to achieve mortar coverage requirements. For large tiles, a thicker bond coat is often required to achieve mortar coverage requirements.” The LHT mortar definition additionally defines “heavy” tiles as those weighing over five pounds per square foot, and it states that the bond coat thickness after the tile is embedded is intended to be  $\frac{3}{32}$  to  $\frac{1}{2}$  inch nominally. Previously, the medium bed mortar definition allowed up to a  $\frac{3}{4}$ -inch-thick bond coat, but after further review and industry experience, only the narrower range is specified.

Together, the name change, improved clarity and added information more clearly communicate limitations on how manufacturers intend LHT mortars (formerly medium bed mortars) to be used. This *Handbook* change should also provide contractors with support when faced with specifications that conflict with manufacturer recommendations.

Stay tuned for more on this topic. Although the LHT mortar definition notes that “there are no ANSI or ISO standards specific to this type of mortar,” this is expected to change before long. Draft standards for LHT mortars have been circulated within the industry by the Materials and Methods Standards Association (MMSA), which researched and drafted the proposals, with the intent for their eventual adoption as standards by the ANSI A108 Accredited Standards Committee responsible for tile and stone ANSI standards.

The TCNA *Handbook* is an annual publication that is updated and added-to by way of balloting, with a consensus body of industry experts serving as the *Handbook* Committee, the voting body that determines the changes that are made. Having a balanced, industry-representative Committee, and using the consensus process to make changes to the *Handbook*,



LHT mortar is used by installers when taking the hands-on portion of the ACT Large Format Tile installer certification test.

is a checks-and-balances process. With stakeholders from all segments of the tile industry weighing in on change proposals, the process ensures the integrity and the relevancy of the information in the *Handbook*. **TILE**

TCNA *Handbook* changes will be discussed by TCNA Executive Director Eric Astrachan on Tuesday, April 14 at 8 a.m. during his keynote session, which will be held in Rooms S310A-E of the convention center.

For a free digital edition of the new 2015 TCNA *Handbook*, stop by the TCNA booth (#3015) during Coverings to pick one up.

## ABOUT THE AUTHOR



**Stephanie Samulski** is a project manager for the Tile Council of North America (TCNA) and the Ceramic Tile Education Foundation (CTEF). Her tile career began in 1999 as a tile layer apprentice with BAC Local 32 in Detroit, where she worked mainly on commercial installations for Shores Tile Co. Now with TCNA and CTEF, Stephanie works on industry standards as well as knowledge and installation curricula for training and certification programs.