



# Keeping TABS On the Thin Veneer Industry

TABS WALL SYSTEMS, LLC

## Thin Veneer Installations – TABS versus Lathe & Mortar and Polymer Modified Mortar Systems 2nd Quarter 2015

The technology of steel support panels for the installation of thin veneer materials dates back over four decades with incremental improvements along the way that culminated in the introduction of the **TABS** Wall System.

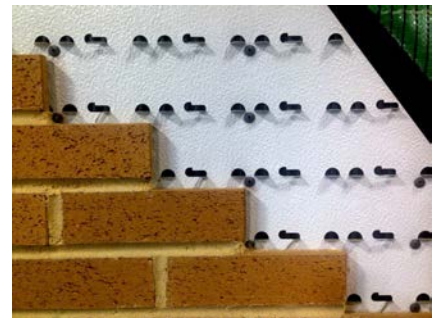
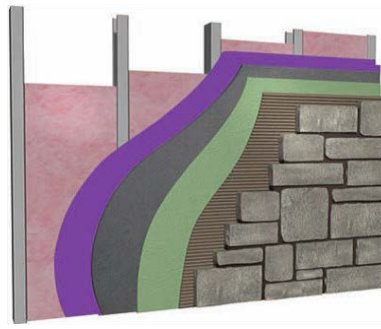
The Brick Industry Association (BIA) identifies three distinct categories for field applied thin veneer installation methods, i.e. thick set (lath and mortar), thin set (cement board and modified mortars) and modular panels (i.e. steel panels). These installation methods contend in a market that has grown exponentially over the last 20 years as the trend towards lighter weight construction has developed.

Comparing these installation methods has become an issue in the industry relative to costs, longevity, warranty and proper use. Often times, as costs overtake all other considerations with the “value-engineers”, the comparisons become skewed and meaningless.

Experienced installers note that the **TABS** Wall System reduces labor costs by 30-50% over traditional thin setting. Alignment of brick follows the perfect template spacing with **TABS**; also the need to reset bricks that may shift during installation is eliminated.

### **COSTS**

Veneer materials and pointing mortar are basically equal with each of these installation methods. The variable cost of materials is the starting point of differentiating the methods. Due to regional cost distinctions, it is best to view the cost data in the table below as ratios rather than actual. Regional costs of materials and labor have a wide range.



<b>Installation Method</b>	<b>Material Costs</b>	<b>Labor Costs</b>
<b>Traditional Lathe and Mortar</b>	\$1.00/square foot	\$3.60/square foot
2 layer WRB (felt)		
Metal Lathe		
Scratch & Brown Coat Mortar		
Adhesive Mortar		
<b>Polymer Modified Mortar (MVIS &amp; TVIS)</b>	\$3.50/ square foot	\$2.00 square foot
Cement Backer Board		
Air & Moisture Barrier		
Adhesive Mortar		
<b>TABS Wall System</b>	\$3.80/ square foot	\$2.40/square foot
Air & Moisture Barrier		
Adhesive		
Panel		

\*Each method requires fasteners, pointing mortar and veneers materials



**Thin Veneer Installations – TABS versus Lathe & Mortar and Polymer Modified Mortar Systems**

**Warranty**

Traditional lathe and mortar installation methods **cannot** offer a systems warranty. The components are sourced from different manufacturers. Usually, the components are determined by the installer (and sometimes approved by architects via the submittal process). Polymer Modified Mortar systems do provide warranties. However, those warranties do not include the fasteners or responsibility for determining the appropriate fasteners in regards to strength, pattern/location or type. The **TABS** Wall System warranty covers all components sold by **TABS** including fasteners.

**Limitations and Related Responsibilities**

Traditional lathe and mortar installation methods have the following concerns:

1. The absence of third party testing to substantiate performance levels.
2. Compromised water resistant barriers that can allow intrusion
3. Low bond strength adhesion values leading to delamination
4. Lack of freeze/thaw durability
5. Inconsistencies in field mix ratios leading to delaminations
6. Lack of technical support for the “system”
7. Unknown building height restrictions
8. Fasteners are the installers responsibility.

Polymer Modified Mortar (MVIS & TVIS) while overcoming the above limitations have the following concerns:

1. Building height restrictions (30-40’)
2. Fasteners are not a part of the system.
3. Flashings are by others.

The **TABS** Wall System is supported by the most comprehensive independent testing in the thin veneer industry. **TABS** is set apart from the above installation methods because the system warranty is complete- fasteners, adhesives, flashings, mortar additives, air and moisture barriers and panels; all from a single source.

**TABS** has also conducted extensive research into the most critical aspect of installing thin veneers, i.e. the fasteners that ultimately secure the veneer to the building structure. As the market embraces continuous insulation in thickness ranging from 1-4”, cantilevered loads are a major concern. Flashings’ determination are a concern relative to load support as well.

**Testing Matters**

The architect/specifier can supply supportive, empirical data with the **TABS** Wall System for code officials that identifies critical concerns for performance. The following is a listing of **TABS’** independent testing. Matching data is not available for other methods of installation.

Test	Conclusion	Test	Conclusion
ASTM C-297-99 Shear Bond Strength Test of Mastic	1500 lbs of force to pull one modular thin brick from the TABS II panel	ASTM D1037-99 Nail-Head Pull-Through	The fastener did not pull through the panel.
AFG-01 Mastic	Not affected by moisture, freeze/thaw cycling or oxidation.	ASTM e 2273-03 per EG356-2006 Water Drainage	Wet Masonry Percent of Recover was 98.42%.
ASTM D 3498 Mastic	Moisture Resistance 100% - No Delaminating, Oxidation Resistance 100%	ICC-ES EG356 3.1.6 Accelerated Weathering	Not affected by accelerated weathering chamber for prescribed period.
ASTM E-72 Windload Test	Meets the requirements for use with commercial or residential mid-rise & high-rise applications	ASTM E96-05 ICC-ES EG356 Section 3.1.3 Water Vapor Transmission	Permeance 0.00 Perms.
ASTM E—119-00 Fire Resistance Test	Temperature did not rise above prescribed levels and water hose test was met.	ASTM C1338-02 ICCES Eg356 Section 3.1.1 Fungi Resistance	Demonstrates the resistance of fungal contamination.
ASTEM E-84-03 Surface Burn Spread & Smoke Development	Flame Spread Index = 0 Smoke Developed Index—0	AFPA 285—Flame Spread Test	Engineering extensions for the TABS Wall System as a component can meet the criteria of NFPA 285. (TABS is an approved component of Carlisle Coating & Waterproofing Assemblies.)
ASTM B-117-03 1000 Hour Salt Spray Test	No Staining or corrosion was observed after 24 hours of exposure.		

\*Complete Test Reports Available through TABS Wall Systems



# Keeping TABS On the Thin Veneer Industry

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**Adhesive bond loss due to insufficient scratch coat**



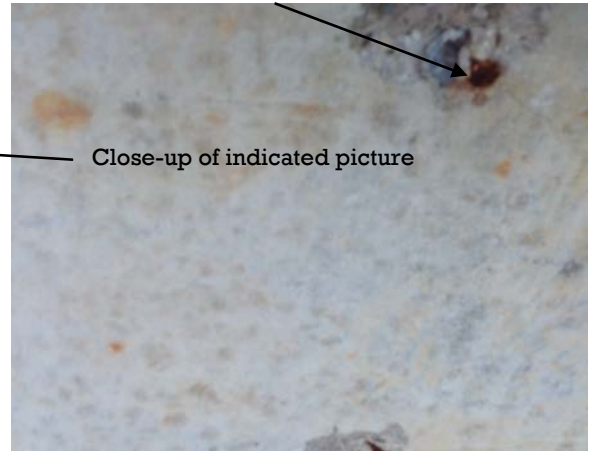
The absence of a systems manufacturer for consultation and field support resulted in an installation without a single control joint, and thus the buckling of walls. The entire building is being stripped and reinstalled.



Insufficient fasteners (and non-galvanized fasteners) resulted a complete section of veneer falling below.



Non-Galvanized Fasteners



Close-up of indicated picture