



**TENIRE**  
POLYMER TECHNOLOGY  
PATENT PENDING

# Bosti-Set™

**THIN PORCELAIN TILE PANEL  
ADHESIVE & SOUND REDUCTION MEMBRANE**

Faster, safer, and more durable installations

**New-To-The-World  
TECHNOLOGY!**



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# The secret to **faster, safer, and more durable installations** of thin porcelain tile panels.

**Introducing!**

## TENIREX™ POLYMER TECHNOLOGY



Architects and installers alike agree that Bostik's Tenirex™ Polymer Technology will revolutionize the industry. The patent-pending formulation

found only in Bosti-Set™ premium thin (gauged) porcelain tile panel adhesive and sound reduction membrane provides the adhesive with remarkable instant grab and holding power. Because all that is needed is a single coat of adhesive on the back of the panel itself, installation on walls is much faster and easier than using mortars. Outstanding workability allows the panels to be repositioned for up to 30 minutes with no slip or sag. This smart innovation means projects can be completed faster and safer, with more precision, while offering exceptional sound abatement properties.

## THICKNESS CONTROL™ SPACER TECHNOLOGY



At Bostik, innovation comes in many forms, not just chemistry. Bostik's patent-pending Thickness Control™ Spacer Technology is a feature built into

Bosti-Set™ that helps ensure proper membrane thickness is maintained between the thin porcelain tile panel and the substrate. The key to this technology is the recycled rubber crumbs mixed into the adhesive during the blending process at our manufacturing plants. The size of these particles creates the optimal membranethicknessforsuperiorreductionof sound. The Thickness Control™ Spacers are also the thickness of most lippage control devices, helping ensure a flat panel edge and easy alignment throughout.



## YESTERDAY'S INSTALLATION CHALLENGES

Before Bosti-Set™, best-practices for the installation of thin porcelain tile panels on walls had several drawbacks. Specialty, non-sag mortars and thin sets required mixing on-site, needed to be troweled onto the back of the panels and the walls, and had short pot lives. Power tools and water were needed, and once mixed, mortars had to be used immediately, often resulting in excessive waste. Proper installation not only required extra labor to comb mortar onto both walls and the backs of the panels, but increased the mortar bed thickness and total installed weight of each panel. Installing at higher elevations was more dangerous with the added weight of mortar on the panels as well as the need to beat the panel into the mortar for it to grab properly. The rigid nature of mortar was also prone to crack propagation and significantly increased sound attenuation through walls. It has truly been a legacy approach due to the lack of specialty adhesive solutions!

## ADVANTAGES TO THE ARCHITECT, DESIGNER OR SPECIFIER

- Cuts installation time by as much as 50%
- Greatly improved acoustics - STC
- 80% lighter than typical installed weight of mortar
- Zero VOC's (as calculated per SCAQMD Rule 1168)
- Contains 2% recycled material (by weight)
- No water or electricity required on site to apply
- Class A installed flame rating (with panel)
- Safer for high elevation installations
- Accommodates vibration & some structural deflection (elevator cabs, yachts, rail cars, RV's, etc.)
- Adheres to a wide range of substrates without primer

Specifying Bosti-Set™ on your projects for the installation of gauged porcelain panel tiles on walls will not only enable your project to be completed faster, but will significantly improve acoustics while also reducing installed weight. Acoustic insulation can be eliminated from walls and still achieve a STC greater than 50 (52, as shown in figure 1), or add acoustic insulation for even greater sound transmission control.

LEED® points for your projects may also be supported by Bosti-Set™ by contributing to section EQ 4.1 - Low Emitting Materials - Adhesives & Sealants with zero VOC's (as calculated by SCAQMD Rule 1168), as well as section MR4.2 - Recycled Content with 2% recycled material by weight. Bosti-Set™ has less impact on resources than mortars because there is no water needed for mixing, and no electricity used for the installation process. Bosti-Set™ achieves a Class C flame rating by itself, and when used as a part of a system with the thin porcelain tile panel, achieves a Class A (see figure 2).

Bosti-Set™ is also perfect for the installation of thin porcelain tile panels in applications that experience

## THE BOSTI-SET™ REVOLUTION

Now, thanks to the patent-pending breakthrough in adhesive science represented by Bostik's Tenirex™ polymer technology, projects can be completed in roughly half the time and are far more durable. A single layer of adhesive is troweled on to the back of the panel only, cutting in half the square footage necessary to trowel, and avoiding the shoulder strain of troweling on walls. Additionally, crew members who had been dedicated to mixing, running mortar back and forth, and cleaning pails & equipment can be used for more value-added activities of installing. Bosti-Set™ is significantly lighter with much greater coverage, so total installed weight is roughly 80% less than the weight of typical mortars.

Bosti-Set™ has zero VOC's and contains 2% recycled material so it may contribute to LEED® points under sections EQ 4.1 Low Emitting Materials - Adhesives & Sealants, and MR 4.2 Recycled Content.

vibration and some structural deflection, such as elevator cabs.

For a typical 5,000 square foot wall installation, we show in figure 3 some of the many benefits of Bosti-Set™ over traditional mortars. Figure 1 shows the exceptional sound abatement properties of Bosti-Set™, comparing a standard wall to 3.5mm porcelain tile panels installed with traditional mortars and those installed with Bosti-Set™.

**FIG 1: SOUND REDUCTION CONTROL**

ASTM E 90 TEST RESULTS		
Substrate Type*	Hollow Wall	Wall w/ Acoustic Insulation
Bosti-Set™ - Bonding 3mm Porcelain Tile Panel to Wall Assembly	52	58
Thin Set Mortar Bonding 3mm Porcelain Tile Panel to Wall Assembly	42	45
Wall Only	40	50

\* All configurations use 5/8" Type "X" Drywall on 3-5/8" 25 Gauge Steel Stud, 24" O.C.

**FIG 2: FLAME SPREAD / SURFACE BURNING**

ASTM E 84 Results	
Bosti-Set™ adhesive only	Class C
Bosti-Set™ assembly with 3mm porcelain panel tile*	Class A

\* Testing of assemblies is specific to the materials used. For details, please contact Bostik Technical Service at 800-726-7845.

**FIG 3: TYPICAL 5,000 SF WALL INSTALLATION**

	Typical Mortar	Bosti-Set™
Work Days to Complete	10 days (4 man crew)	6 days (2 man crew)
Quantity needed	258 - 50 lb bags	65 - 4 gallon pails
Total Weight	15,849 lbs	3,325 lbs
Water Needed	360 gal	5 gal (wall wipe only)
Electricity	369.79 kWh	0 kWh



### ADVANTAGES TO THE CONTRACTOR

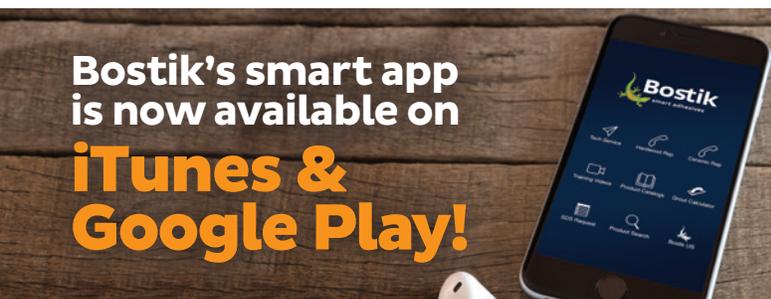
- Cuts installation time nearly in half, WITH HALF THE CREW!
- Trowel on to panel only, no combing on to walls
- Adheres to a wide range of substrates without primer
- Schedule more jobs
- Adjustable for up to 30 minutes
- 80% less weight than mortar to stage
- No water or mixing
- No equipment, cords or hoses for mixing
- Longer working time than typical thin sets
- Exceptional instant grab makes it safer working at greater heights
- Less waste than mortar
- Easy adhesive clean up, even after the cure
- Easy panel replacement
- Install over clean tile with no primer

Nearly double typical installation speed. Contractors who use Bosti-Set™ for the installation of thin porcelain tile panels on walls will enjoy substantial benefits. Bosti-Set™ only needs to be troweled on to the back of the panel, cutting in half the square footage to be troweled and eliminating the shoulder strain from troweling on to walls. While the material cost may be higher, labor will be cut roughly in half as will the work days to complete the project.

More jobs can be scheduled, and when necessary, more competitive bids can be submitted. A crew of 2 can effectively install thin porcelain tile panels rather than the crew of 4 necessary when installing with thin set mortar, so more jobs can potentially be run at the same time.

Work smarter and safer. The reduction in number of pails of Bosti-Set™ vs. bags of mortar results in less weight to move around the jobsite and faster staging. No water, no mixing and zero VOC's means a safer site and less mess – no equipment, cords, hoses or waste water from mixing to deal with. Hoisting a 3.5mm x 1m x 3m panel is easier with a 30 lb reduction in weight using Bosti-Set™ instead of a typical mortar.

The longer working time and repositionability of 30 minutes is more forgiving, and it is easier to adjust lippage with Bosti-Set™'s Thickness Control™ Spacer Technology. Bosti-Set™ also has very aggressive initial grab making it safer to install panels at greater heights. There is much less material waste because excess material can be kept in the pail with the lid closed and can be saved for later use. Bosti-Set™ can also be installed on porous and non-porous substrates without requiring primers.



**BOSTIK HOTLINE**  
**Smart help**  
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This document supersedes all previously published literature.