



# Vacuum/Breton Process

## Synthetic Marble and Stone

### TDS 117

This process combines a mixture of crushed marble or stone chips and powdered stone, together with colors and polyester resin as the binder. The dry materials are combined, and the resin and hardener added to make a mass that is placed in an enclosed chamber and put under negative pressure, using a vacuum pump, to remove air bubbles.

After the polyester resin reacts, it binds the entire mass into a solid block that is then cured and sliced into tiles and slabs. These tiles and slabs are then further processed by polishing the front and grinding the back to a uniform thickness. Slabs can also be cast by this process and will be processed by grinding and polishing to produce finished slabs with the appearance of marble or other stone, but at a more economical cost than natural stone cut from block.

Normally, the back of all of the agglomerated stone is passed through a grinder to gauge the material to a uniform thickness and to remove all irregular protrusions. The thickness is normally gauged accurately within +/- 1mm (1/25").

This stone material is used, worked and installed just as natural stone tiles or ceramic tiles. Slabs cut in the larger sizes are used for floors and walls similar to "natural" granite or marble slabs. Thickness may vary from 3/8" (9mm) for tiles 12" x 12" (30cm x 30cm) to 5/8" (16mm) and even 3/4" (20mm) for larger slabs that are used on walls and floors.

Slabs used for walls or floors in the thicker sizes will usually be produced in sizes larger than 12" x 12" (300mm x 300mm). These can be 400 x 400mm, 300 x 600mm, 600 x 600mm and larger (16" x 16"; 12" x 24"; 24" x 24").

Since the back of this material has a well-finished surface that is uniform and free of polyester resin, it appears and acts just like natural stone or marble. Provided that the manufacturer of the agglomerate tile recommends the use of a latex-fortified portland cement based thin set mortar (e.g. 254 Platinum, 257 TITANIUM™ or MULTIMAX™ LITE). LATAPOXY® 300 Adhesive can also be used for installing moisture sensitive stone or agglomerate tile.

#### **CAUTION:**

**Before any applications are made on exteriors, the manufacturer of the stone must recommend and warrant that the stone is suitable for exterior applications and will not discolor, curl, or bow under exposure to moisture, sun and UV.**

Technical Data Sheets are subject to change without notice. For latest revision, check our website at <https://laticrete.com>  
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