



YIN & YANG

Natural Stone Tile and Mosaics

STONE MATERIALS and INSTALLATION SUGGESTIONS

- With natural stone tile, facial dimensions and thickness can vary. Significant variation is part of the beauty of these stone types. Expect a wide range in color, tone and veining. Given these irregularities it is suggested that 10 to 15% additional material be ordered to offset necessary sorting.
- During the installation of these tile planks and mosaics the use a white thin-set or white medium bed mortar modified with latex or dry polymers and compliant with ANSI 118.4. is recommended.
- Natural stone products contain holes, voids, fissures, dry seams and other characteristic flaws that may be filled with resin that have a similar color and texture as the stone. These areas may appear slightly rough or dull under reflective light. Voids can sometimes lose their fillings and should be refilled as part of normal maintenance of the stone.
- The darker the marble, the softer the material tends to be and is therefore subject to scratching if used on the floor. When **Black Dragon** or **Tea Garden** are used on floors, medium to light traffic areas are advised, along with adequate walk off mats or carpets. Un-sanded grout is recommended.
- All installation methods used should be consistent with recommendations by the Marble Institute of America and or the Tile Council of North America.
- When choosing setting mortars, grouts and sealers maintain a single source and follow the manufacturer's instructions.
- The use of a white medium bed mortar compliant with ANSI 118.4 with its additional sand content can assist in compensating for variation in both substrate and tile thickness.
- Some natural stones such as **Bonsai**, **Moon Gate** and **Snow Flower** can stain if traditional cement colored mortar is used. As stated previously the use of a white thin-set or white medium bed mortar modified with latex or dry polymers and compliant with ANSI 118.4. is strongly recommended.
- Back buttering the tile planks insures that 100% contact extends to all corners and edges and that the tile is fully supported.
- The natural stones in the **Yin & Yang collection** are porous; they can readily absorb oils and other liquids and therefore are subject to staining.
- The mosaics and the tile planks must be sealed prior to the grouting process, again upon completion of the installation and periodically thereafter to enhance and maintain the beauty of the stone.
- **Regular application of a penetrating sealer provides reaction time for cleaning to occur. Sealing does not make the stone "stain proof."**
- Two sealers that provide good results and are readily available throughout the country are:
 1. Miracle Sealants 511 Impregnator (800-350-1901 Ext 1)
 2. Aqua Mix Sealers Choice Gold (800-272-8786)
- Unsanded grouts are typically chosen given the prevailing desire for narrow grout joints (1/8" or less), the polished finish and the soft composition of many of the stone products. Dark or heavily pigmented grouts should always be tested prior to use with your stone selection to avoid absorption and staining.

SUBSTRATE PREPARATION

- Concrete slabs require a 28 day minimum cure time. Additional truing/leveling and repair of any surface cracks may be necessary prior to installation.
- Make sure the substrate upon which you are installing the tile is suitable for the application of natural stone. If grout joints as narrow as 1/8" or less are desired, improving the substrate to 1/8" in 10' from the required plane, with no more than 1/16" variation in 24" when measured from the high points in the surface (ANSI 108.02) is recommended.
- Suitability of the substrate includes structural stability. The Marble Institute of America recommends deflection not to exceed L/720 including all live and dead loads or slightly less than 1/4" (6mm) (+/-) in 15 feet (4.6m).
- Dust and dirt can accumulate on all natural stone tiles; they should be thoroughly wiped and cleaned prior to installation to assure an effective bond.

MAINTENANCE

- Generally avoid all bleaching, abrasive and acidic cleaners with natural stone tile.
- Clean only with pH neutral cleaners such as 409 Natural Stone Cleaner, Mr. Clean Neutral Cleaner.
- For specific care and maintenance information contact Crossville Technical Service at (931) 484-2110.
- The Marble Institute of America website, www.naturalstoneinstitute.org, Telephone (440)-250-9222
- The Tile Council of North America website is www.tcnatile.com, Telephone (864)-646-8453

The natural stone products in the **Yin & Yang Mosaic and Tile series** are quarried and cut from a variety of natural formations in numerous locations. These natural stone materials do not come from a precisely controlled manufacturing process; therefore Crossville Inc. does not warrant these natural stone tile products for variations in surface finish, warping, consistent thickness, sizing, shading, clefing, shaling, spalling or other natural variances that may occur resulting from change in quarry location or exhaustion of current vein or strata.