INSTALLATION GUIDE

The following information is provided as a general guideline for the installation of Mandala Porcelain Collection; some installations require a more detailed specification. An experienced, professional tile installer, who has read and understands this information, should perform the work. For additional installation recommendations, please contact Oceanside Glasstile Technical Services, 877-648-8222 or techsupport@glasstile.com.

The owner or owner's representative is responsible for determining the acceptability of the product prior to installation. Upon delivery, open and inspect each box of tile to verify the color and dye lot consistency. Any discrepancies in the order should be communicated immediately to the point of purchase. Blend the entire tile order either prior to or during installation to promote a visually consistent appearance.
No adjustments will be made after installation.
Due to inherent warpage in large format tiles, Mandala Porcelain Collection floors designed with a running bond (brick) pattern should not be offset more then 30% of the tile's length. The minimum recommended grout joint size for Mandala Porcelain Collection is ⅛"

INSTALLATION
Install tile in accordance with the current versions of the Tile Council of North America's "TCNA Handbook for Ceramic, Glass, and Stone Tile Installation" and the "ANSI A108 American National Standards for the Installation of Ceramic Tile". The TCNA handbook and ANSI A108 standard is available for purchase at www.tcnatile.com.

MAINTENANCE
Oceanside Glasstile is proud to introduce, Oceancare, an innovative line of sealing and maintenance products for tile and natural stone. Developed by Oceanside Glasstile using cutting-edge chemical technology, Oceancare products are highly effective, easy to use and environmentally friendly.
Oceancare products address the most common concerns associated with tile and natural stone maintenance and, when used in conjunction with one another, provide a complete maintenance solution without the damaging effects of bleach, acid, ammonia or abrasive cleaners. Oceancare is an excellent choice for most tile types, including porcelain, ceramic, natural stone and glass tile.

For product availability and pricing please contact an Oceancare dealer or visit the Oceancare Products website www.oceancareproducts.com.

High Performance
Penetrating Sealer
Hybrid Carrier Technology™

pH Neutral
Tile and Stone
Cleaner

All Natural
Degreaser

Calcium
Releaser

Glass Tile
Shower Cleaner

Sealing

Oceancare High Performance Penetrating Sealer – Hybrid Carrier Technology™. Traditionally, penetrating sealers have been available in either a water or solvent-based formula. Each had its benefits, but the consumer was forced to choose… until now. Through the discovery of a revolutionary water/solvent blending process, High Performance Penetrating Sealer offers the convenience and safety of a water-based formula combined with the ease of use and performance of a solvent-based formula. Superior stain protection*, low residue, low odor, low VOC's and the ability to seal damp or uncured grout; Hybrid Carrier Technology™ is an evolutionary leap in sealer development and brings you the best of both worlds. * Based on CTI-T72 stain testing.

Penetrates and protects grout, natural stone and other porous masonry materials. Forms an invisible, no-sheen barrier that is resistant to water and oil and provides superior stain protection. Low residue formula is specially designed to be easier and faster to apply than traditional penetrating sealers. Will not alter the natural look of tile or grout and may be applied to dry, damp, cured or uncured grout or natural stone (seriously… immediately after grouting!).

General Cleaning

The key to successfully maintaining any tile installation is regular, proper maintenance. Food or other spills (i.e. coffee, wine & citrus) should be wiped up immediately. For regular cleaning use a nylon scrub-brush or 3M white nylon scrub pad and the appropriate cleaner listed below.

pH Neutral Tile and Stone Cleaner

A non-toxic, biodegradable, all-purpose cleaner designed for daily use on almost any hard surface. Cleans glass tile, grout, granite counter tops, porcelain, ceramic and natural stone.

All Natural Degreaser

100% natural, plant derived, citrus-based degreaser that quickly cuts through grease and oil. Cleans glass tile, cooktops, appliances, grout, granite countertops, porcelain, ceramic, natural stone.

Glass Tile Shower Cleaner

CFC free aerosol cleaner, ideal for cleaning glass tile tub-surrounds and showers. Ammonia free formula will not damage natural stone or existing sealers. The aerosol foam clings to vertical surfaces and cuts through soap scum and body oil. Designed for regular use on glass tile, grout, metal fixtures, porcelain, ceramic and natural stone.

Calcium Releaser

A non-toxic, acid-free cleaner that effectively removes calcium deposits and efflorescence from pool tile, shower/tub enclosures, shower doors and metal fixtures. Calcium deposits are removed in layers through the use of advanced acid-mimic technology, which specifically targets mineral build-up without damage to the tile surface or metal finishes. When applied prior to media-blasting, Calcium Releaser softens and loosens deposits, which allows for the use of less aggressive media, reduced blasting time and reduced media consumption. Designed for use with metal, porcelain, ceramic, glass and iridescent glass tile.

Cement-Based Grout Haze

Sulfamic Acid Cleaner - Cure the installation a minimum of 10 days after grouting. Following the Sulfamic Acid manufacturer's instructions, remove haze with a nylon scrub brush or nylon scrub pad (3M white). Thoroughly rinse with clean water and towel dry.

This chart contains general use recommendations and corresponding laboratory test results. The environment, climate, maintenance and wear can affect the performance of all tile installations. It may be beneficial to consult with an architect or tile professional during the tile selection process or prior to installation.

RECOMMENDED APPLICATIONS

LOCATION	WALLS Interior	WALLS Exterior	FLOORS Interior Light Residential	Residential	Heavy Residential	Light Commercial	Commercial	Heavy Commercial	FLOORS Exterior Light Residential	Residential	Heavy Residential	Light Commercial	Commercial	Heavy Commercial	COUNTERTOPS Powder Room Residential	Light Commercial	Heavy Commercial	COUNTERTOPS Kitchen Residential	Light Commercial	Heavy Commercial
OXIDO																				
Carbon	●	●	●	●	●	●			●	●	●	●			●	●		●		
Rust	●	●	●	●	●	●			●	●	●	●			●	●		●		
PIEL																				
Sharkskin	●	●	●	●	●	●	●		●	●	●	●	●		●	●		●		
Buckskin	●	●	●	●	●	●	●		●	●	●	●	●		●	●		●		
DECCA																				
Clay	●	●	●	●	●	●	●		●	●	●	●			●	●		●		
Camel	●	●	●	●	●	●	●		●	●	●	●			●	●		●		
Flint	●	●	●	●	●	●	●		●	●	●	●			●	●		●		
Coal	●	●	●	●	●	●			●	●	●	●			●	●		●		
CONTINUUM																				
Mystic White	●	●	●	●	●	●	●		●	●	●	●			●	●		●		
Copperwave	●	●	●	●	●	●	●		●	●	●	●			●	●		●		
Luna Gray	●	●	●	●	●	●	●		●	●	●	●			●	●		●		

Light Residential — Residential flooring areas subject to soft-soled footwear or normal footwear traffic without heavy dirt. Some examples would be: interior rooms such as bathrooms and bedrooms without exterior access.

Residential — Non-commercial floor areas that are subject to soft-soled footwear or normal footwear traffic with small amounts of abrasive soil. Some examples would be: living or dining rooms.

Heavy Residential — Residential flooring areas that are subject to normal footwear traffic with occasional amounts of abrasive soil. Some examples would be: halls, kitchens and corridors.

Light Commercial — Non-industrial, commercial flooring areas that are subject to normal footwear traffic (less than 50 people per hour) with occasional amounts of abrasive soil. Some examples would be: boutique showrooms and corporate office spaces.

Commercial — Flooring areas that are subject to considerable traffic and abrasive soil. Some examples of these would be: entrances, workrooms, inns, exhibition halls and salesrooms.

Heavy Commercial — Flooring areas that are subject to heavy traffic with very abrasive soil. An example would be the floor of a manufacturing facility.

ISO TEST RESULTS

ISO STANDARD	101	ISO 10545-3	ISO 10545-4	ISO 10545-4	ISO 10545-6	ISO 10545-7	ISO 10545-9	ISO 10545-11	ISO 10545-12	ISO 10545-13
Type of Test	Moh's Scratch Hardness (1-10)	Water Absorption	Modulus of Rupture	Breaking Strength	Deep Abrasion Resistance	Visible Abrasion Resistance	Thermal Shock Resistance	Crazing Resistance (Steam)	Frost Resistance	Chemical Resistance
Requirements ISO 13006 Group BIa	Min 5	< .5% (Impervious)	Min 35	Min 1.300	≤ 175mm^3	Scale 1 to 5	Required	Required	Required	Classification*
PIEL										
Sharkskin	5	Pass	Pass	Pass	Pass	4	Resists	Resists	Resists	GA / GLA
Buckskin	5	Pass	Pass	Pass	Pass	4	Resists	Resists	Resists	GA / GLA
OXIDO										
Carbon	5	Pass	Pass	Pass	Pass	3	Resists	Resists	Resists	GA / GLA
Rust	6	Pass	Pass	Pass	Pass	3	Resists	Resists	Resists	GA / GLA
DECCA										
Clay	6	Pass	Pass	Pass	Pass	4	Resists	Resists	Resists	GA / GLA
Camel	6	Pass	Pass	Pass	Pass	4	Resists	Resists	Resists	GA / GLA
Flint	6	Pass	Pass	Pass	Pass	4	Resists	Resists	Resists	GA / GLA
Coal	6	Pass	Pass	Pass	Pass	3	Resists	Resists	Resists	GA / GLA
CONTINUUM										
Copperwave	7	Pass	Pass	Pass	Pass	N/A	Resists	N/A	Resists	UA / ULA / UHA
Luna Gray	7	Pass	Pass	Pass	Pass	N/A	Resists	N/A	Resists	UA / ULA / UHA
Mystic White	7	Pass	Pass	Pass	Pass	N/A	Resists	N/A	Resists	UA / ULA / UHA

GA – Glazed Tile, tested with household chemicals & swimming pool salts: no visible effect
UA – Unglazed Tile, tested with household chemicals & swimming pool salts: no visible effect
GLA – Glazed Tile, tested with acids & alkalis – low concentrations: no visible effect
ULA – Unglazed Tile, tested with acids & alkalis – low concentrations: no visible effect
UHA – Unglazed Tile, tested with acids & alkalis – high concentrations: no visible effect

ASTM TEST RESULTS

ASTM TEST	C1028	ASTM TEST	C1028
Type of Test	Static Coefficient of Friction	Type of Test	Static Coefficient of Friction
PIEL		**DECCA**	
Sharkskin	Dry = .80 Wet = .64	Clay	Dry = .76 Wet = .60
Buckskin	Dry = .80 Wet = .64	Camel	Dry = .75 Wet = .61
OXIDO		Flint	Dry = .74 Wet = .60
Carbon	Dry = .80 Wet = .64	Coal	Dry = .73 Wet = .60
Rust	Dry = .80 Wet = .64		
CONTINUUM			
Copperwave	Dry = .86 Wet = .64		
Luna Gray	Dry = .86 Wet = .64		
Mystic White	Dry = .86 Wet = .64		