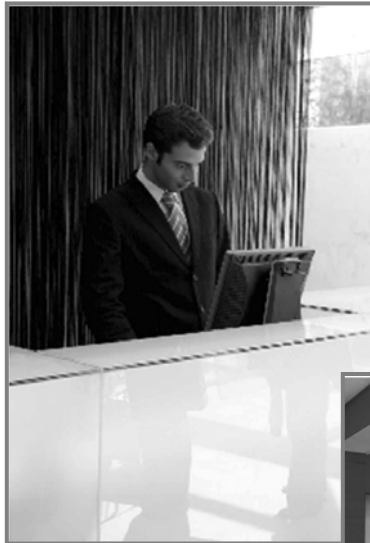


PURE™ INSTALLATION GUIDE

Our Glass, Your Vision



DIAMOND TECH TILES
5600 Airport Boulevard; Suite C | Tampa, FL 33634 | 800-937-9593 | 813-806-2923 |
www.DTTiles.com

CONTENTS

CHAPTER 1: SPECIFICATION

- I. Specification

CHAPTER 2: INTRODUCTION

- I. Inspection
- II. Storage
- III. Transportation
- IV. Handling

CHAPTER 3: AT THE JOB SITE

- I. Measuring
- II. Surface Preparation

CHAPTER 4: FABRICATION

- I. Cutting Procedure
- II. Grinding & Polishing Procedure
- III. Hole Drilling Procedure

CHAPTER 5: INSTALLATION

- I. Tile Adhesive/Grout method

CHAPTER 6: ADDITIONAL TIPS

- I. Expansion gaps
- II. Cleaning
- III. Care

This text is designed to offer professional methods and standards for achieving excellent results when installing PURE™™. Although there are many alternative methods that may be used, the authors of this text present within methods that have been proven safe and successful.

The information in this manual is, to the best knowledge of Diamond Tech Tile factual and accurate. Since actual application of principles established herein are beyond the company's control to supervise, the company disclaims any liability for loss or damage suffered from the use of this data.

Chapter 1: SPECIFICATION

PURE™™ is manufactured using a proprietary paint technology developed specifically for superior adhesion to glass. The color coating is applied to the “second surface”, or non-contact surface, of the glass. After installation, the color coating is not subject to degradation over time.

Extensive testing has been conducted on this coating to verify its reliability. It has shown superior resistance to color fading by UV light, non-yellowing properties, excellent resistance to a wide range of chemicals, cleaners, and moisture and humidity.

Colors are developed using a computerized intermix system with a database of over 25,000 colors. Virtually any color can be produced with extremely accurate and repeatable results.

PURE™™ is manufactured using .315” thickness (8mm) Starphire® Ultra Clear Glass by PPG Industries. This low-iron glass allows the color to be perfect without any greenish tint found in standard glass. This is particularly important for true reds, true whites, pastels and creams to keep colors warm and true.

Approximate weight for .315” thickness (8mm): 4.8 lbs per square foot

Chapter 2: INTRODUCTION

INITIAL INSPECTION:

When a case arrives, inspect for any external damage or rattles these could indicate breakage. If damage is apparent, note visual damage on the bill of lading, Receiver and the Driver must initial the items in question that could be concealed damage. Follow the Interstate Commerce Commission procedure for filing a freight claim if necessary.

STORAGE:

Store PURE™™ vertically on flat, stable surfaces. Do not store flat. Glass exhibits more strength when stored upright. Glass may be stored in the case, but do not pull from the end of the case. Do not store PURE™™ outdoors or in unheated areas, which could lead to excessive expansion and contraction caused by cyclic temperatures. Block PURE™™ cases off the floor to allow for proper ventilation and away from any water damage.

TRANSPORTATION:

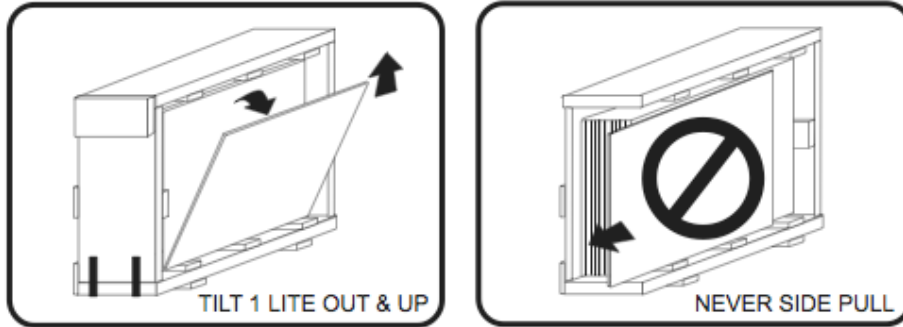
Be sure that handling equipment (forklifts, cranes) are strong enough to handle the weight of glass. For a reference, .315” thickness (8mm): 4.8 lbs per square foot

PURE™™ comes packed in wooden cases from the manufacturer. Each piece has a non-reactive paper divider to prevent scratching with the adjacent piece. Do not ship partially unpacked cases without proper repacking to prevent movement and damage.

Transportation of individual lite (or glass piece) via truck should be done on a rubber padded rack either in an enclosed box truck, or on an open air rack truck which is strapped securely. If on an open air rack, please turn the piece of glass so the painted side is facing out to reduce the likelihood of a glare to other drivers. Keep in mind that road salt, gravel, and other road hazards could scratch the back of the glass and care should be taken to protect it from such events.

HANDLING:

Glass should be handled carefully. Remove PURE™™ from a case as shown below:



Annealed (untempered) glass can be broken by a shock in temperature change or by a firm strike to any portion of the glass. This is why it is important to handle glass with care. Precautions should also be taken to avoid scratching the surface of the glass. No filler or resin is possible to repair a gouged surface. When working, it's always important to have a clean, padded surface with which to place the glass to prevent scratches during handling.

CHAPTER 3: AT THE JOB SITE

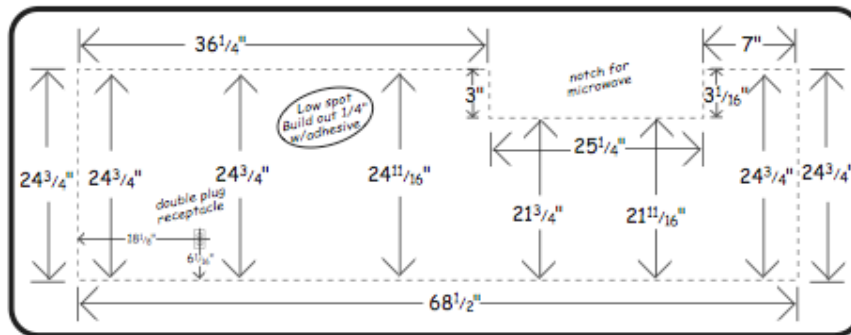
MEASURING:

A good installation requires a full 'read' of the wall. You must determine the high and low areas of the wall surface. It is also useful to make sure the surrounding cabinets are level or plumb. A 4 or 6ft. level and straightedge will be best for this task.

Find the highest point (and widest point) of the installation wall by measuring every 6-8" in each direction. Create a diagram of the job, and note the low spots in the surface that might need to be built out using a proper back support.

Measuring for receptacles must be done at this time and they are always to the center of the outlet. Note at this time whether the receptacle is a switch, double plug, Decora switch, cable jack, air vent, etc. and measure it as well to be sure it adheres to the industry standards. For instance, a normal double plug receptacle is 2-1/8" x 4-3/16", however always measure and don't assume all receptacles are standard.

Note that the receptacles will have to be built out to bring them flush to the new surface after the installation is complete.



SURFACE PREPARATION:

Well cured mortar beds-ANSI A108.1B (cured a minimum of 7 days).

Cementitious backer units (CBU)-ANSI A118.9 (Note: An ANSI A108A-2.1.8 membrane is required behind all CBU installations in wet areas. Concrete slabs (on grade) cured for 28 days minimum. Gypsum board (dry areas only)-ASTM C1396 or ASTM C1396M-04.

NOTE: Directly bonding glass tiles to wood substrates is not recommended. All surfaces to receive tile shall be left clean, and free of dust, oil, grease, paint, tar, wax, curing agent, primer, sealer, adhesive

residue, form release agent or any other deleterious substance and debris which may prevent or reduce adhesion.

Glass tile high expansion and contraction requires the installation of movement joints per EJ171-05 of the TCNA Handbook.

Below are adhesives that have been proven successfully with PURE™™. Always follow the adhesive manufacturer's instructions regardless of the installation method you choose. Please note that Diamond Tech does not manufacture any adhesive and can only recommend these adhesives as they are specially formulated per the manufacturer, for use with glass tile.

Latricrete: 254 Platinum Multipurpose Thin-Set Mortar. No admixture necessary

MAPAEI: Kerabond Premium Dry-Set Mortar (KER 102) mixed with Keralastic Mortar Admix (KER 310)

TEC (HB Fuller): Super-Flex Premium Performance Universal Latex-Modified Thin-set Mortar; No admixture is necessary.

Custom Building Products: Premium Plus Thin-Set Mortar (white) mixed with Custom Flex Ultra-Strength Thin-Set Additive

Custom Building Products: MegaFlex Ultimate Thin-Set Mortar.

Custom Building Products: MegaLite Crack Prevention Mortar.

Flextile: 52 Versatile Floor Mortar.

Hydroment: ReFlex Ultra-Premium Latex-Modified Thin Set Mortar.

PLEASE READ AND FOLLOW ALL MANUFACTURERS RECOMMENDED INSTRUCTIONS FOR MIXING AND SLATING OF ADHESIVES.

CHAPTER 4: FABRICATION

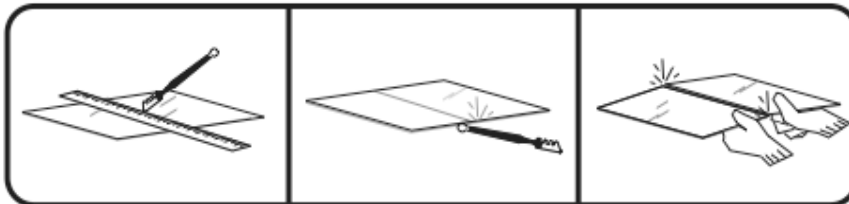
CUTTING PROCEDURE

PURE™™ can be cut using a wet tile saw fitted with a new diamond-blade designed for cutting glass tile and polisher for a professional look. For best results, always face the painted side face down on the cutting table or saw, so the wheels come in contact with the glass side first.

If cutting the glass by hand, first be certain your cutting table is free of **all** particles that could scratch the paint. Lay the tile on the surface with the paint side on the table. Always wear your safety equipment (closed-toe shoes, goggles, wrist protectors, etc.) before any fabricating procedure. Remember, PURE™™ should be scored on the glass (unpainted) surface.

TO MAKE A STRAIGHT CUT BY HAND:

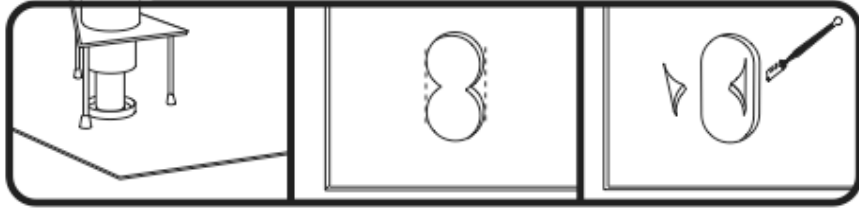
Mark the desired cut line with a grease pencil or china marker. Lay a straight edge firmly along the surface and use a lightweight household oil (kerosene or WD-40 also works well) to lightly lubricate the cutting wheel. With one continuous motion, firmly score the surface of the glass with the cutter. Do not rescore the surface. Tap along the backside of the score with the ball end of the cutter to allow the score to travel deeper into the glass. Then firmly grasp on either side of the score and snap the glass free. Use glass pliers to snap off smaller or thinner pieces.



HOLE DRILLING PROCEDURE:

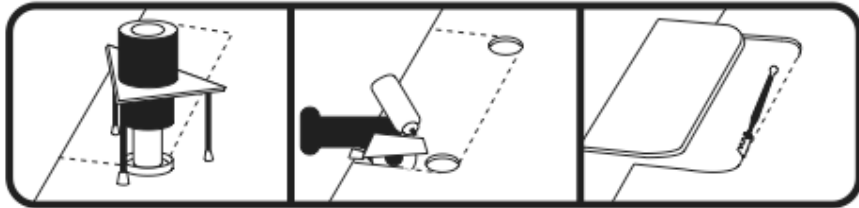
To make a receptacle cut-out, use a tripod fitted with a steel tube drill head. These drills work with abrasive grain to “drill” a hole in the glass by rotational abrasion. A drill coolant or water is mixed with an abrasive silicon carbide grain to create a wet paste that is retained at the site through a drilling ring. For a standard plug receptacle, we recommend using a 2” diameter tube drill.

First, make your two holes using the tripod tube drill as shown. Then follow with a hand cutter and cut the excess two points free. You’ll end up with a racetrack shape rather than a true rectangle. Remember, after installation, build out your plug so that it’s flush with the new wall surface.



NOTCHING PROCEDURE:

To make a cut-in notch to account for windows, appliances, etc. use small drill bits for the corners, to set your perimeter. Then, go back with your glass/tile saw and cut in from the edge to the hole. Then do the same thing from the other edge to the other hole. Lastly, use the glass cutter to cut from hole to hole and snap off the excess glass.



GRINDING & POLISHING PROCEDURE:

After a cut is made, the edge is quite sharp. We recommend you “seam” all exposed edges to prevent the likelihood of any accidents.

Use a rubbing block with diamond paper to seam the edge. First, swipe the rubbing block in a single direction along the edge of the ‘first surface’, the one without the paint applied to it, at a 45-degree angle. Then go back and swipe the rubbing block in a single direction along the flat edge of the side. Repeat as necessary until the desired smoothness is achieved.



CHAPTER 5: INSTALLATION

INSTALLATION METHODS:

Surface should be completely dry and sealed, and care should be taken to use compatible adhesives (see Chapter 3)

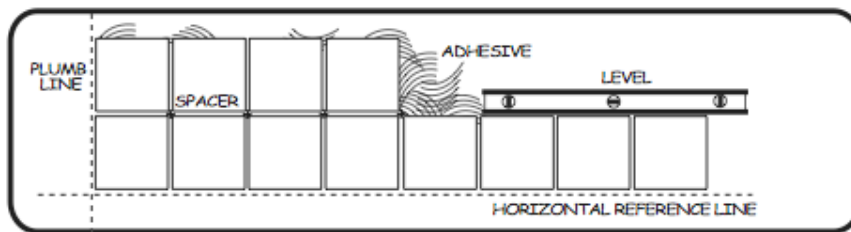
TILE ADHESIVE:

Some customers like the lined look of tile. It adds an additional graphic element to the room that can be very interesting. One of the advantages of PURE™™, is that it is large pieces of glass, so it can be used to create large tile sizes that most readily available glass tiles aren't able to achieve. 12 x 12, 16 x 16 and even 24 x 24 are tile sizes that can create quite an impact on any wall. Another benefit, is that PURE™™ is impervious to moisture, which makes Color Glass a perfect tile choice for backsplashes.

Be sure to follow the tile adhesive and grout manufacturer instructions for the proper depth of application, trowel notch, consistency and cure time. Below is just a general overview of tips to keep in mind.

Apply thinset adhesive recommended for glass tiles, using a 3/16" x 3/16" square notch trowel. PURE™™ is opaque, so no trowel marks show through from the backside after installation.

We recommend that you use a grout with latex or acrylic additives, and that it ideally be non-sanded grout to keep the surface scratch-free. Keep the joints at 1/8" to keep the beauty of the glass intact. Note that grout often takes longer to set with glass than with more porous tile.



Chapter 6: ADDITIONAL TIPS

EXPANSION GAPS:

Expansion joints allow for the wall to expand and contract as the structure settles or shifts over time and temperatures. Glass tile has a high expansion and contraction rate and therefore requires the installation of movement joints per EJ171-05 of the TCA Handbook.

CLEANING:

PURE™™ is very easy to clean and maintain. Its non-porous surface never needs to be sealed and makes it a wonderful option for kitchens, laboratories, hospitals, or any environment where hygiene is important.

Clean the surface with any non-abrasive cleanser or chemicals such as ammonia or vinegar which could be corrosive over time. Spray your cleaner first on a clean rag, and then wipe the surface. Follow by wiping with a clean, drying cloth. Never allow any cleanser to drip to the edge of the glass.

For stubborn, dried on materials, use a new single-sided razor blade at an angle and scrape the surface clean. Be careful not to gouge the surface of the glass and leave a scratch. This will work for dried paint, day-old spaghetti sauce, unwanted adhesive, or any other offending material.

CARE:

Care for your PURE™™ is simple. Follow the cleaning instructions above and avoid any abrasive cleansers. Avoid any sudden strikes to the surface, and avoid any extreme temperature changes that could cause it to crack. Make sure moisture is sealed out and can't get behind the glass to weaken the adhesive surface.