

UltraGlas[®]

CounterTop/Backsplash
Installation Guidelines

Insights

News and Information for Architects and Designers



Installation Guidelines for CounterTops and Backsplashes



Applications — UltraGlas components are ideal for bar, counter, reception and lavatory tops in both interior and exterior installations. However, care must be taken in considering the conditions associated with your specific application. Like other shiny surfaces, glass is susceptible to surface scratching, which occurs most often in high-use areas and (should through-body or fired-in colorations be specified) is most evident when using darker colors. To assure a safe, beautiful and enduring installation, all applicable trade standards, building codes, regulations and specific site conditions (such as thermal variations) must be considered during selection of glass materials.

Please review this entire document before beginning your installation.

The manufacturer accepts no responsibility for the misuse of its product.

Installation — like most surfacing materials, UltraGlas requires specific techniques for surface preparation and component installation. The following guidelines are provided to cover most applications — some applications may require a different or more detailed specification. See additional references on page three of this document.

Installers — an experienced glass or stone-setting professional should always perform the work and should read and understand these guidelines before beginning such work.

Glass and finish specifications

Glass types and thicknesses — the following glass types and thicknesses are available:

Clear glass — (manifests a subtle green hue) is available for counter, slab and backsplash applications in the following thicknesses: 3/8", 1/2" and 3/4" (metric sizes available). Greater thicknesses may be achieved through lamination.

Low-iron glass — (very clear glass) is available for counter, slab and backsplash applications in the following thicknesses: 3/8", 1/2" and 3/4" (metric sizes are also available). Greater thicknesses may be achieved through lamination.

Monolithic (high-fired) Color — the UltraGlas Monolithic Color process fires specified color (or colors) into the glass, becoming one with the body of the glass. Color will not separate. Either opaque or translucent results may be specified. Dozens of standard UltraGlas colors are available — custom colors may be specified (at additional charge) to coordinate with site-specific palettes.

Glass size — UltraGlas components may be specified up to a maximum of 69-1/2" x 119-1/2" (some restrictions apply) and in any available thickness. It is imperative that accurate dimensions and/or same-size template be provided, to assure that the fabricated components install properly. Horizontal surface dimensions are always indicated as **width x depth** — vertical surfaces are indicated as **width x height** — this will be understood, unless otherwise specified.

Edges — all edges are fire-polished for an elegant, eased, softly rounded appearance.

Textural dimensionality — a variety of embossed UltraGlas textures may be specified. Kiln formed textures create a distinct textural relief on one side of the glass, with the other side remaining relatively smooth.

Exposed Surfaces — **When tempering is NOT required**, either side of the glass (textured side or smoother side) may be specified as the number one (exposed) surface.

When tempering IS required and fired-in colorations have also been specified, it is strongly advised that the textured surface be specified as the number one (exposed) surface.

Hole sizes — any hole size may be specified, but must be no smaller in diameter than the thickness of the glass. Additional hole placement requirements may be found in the document entitled '[Ordering Guidelines](#)' — this document ('pdf' format) may be obtained from your UltraGlas Dealer or by visiting [UltraGlas.com](#) > 'About UltraGlas' > 'Insights'.

Tolerances — UltraGlas components are fabricated to comply with industry standards. Dimensional tolerances are $\pm 1/4"$ for 3/8", 1/2" and 3/4" thicknesses. Tolerances for holes and hole placements are $\pm 1/16"$. Some bowing may occur, to a maximum acceptable variance of 1/2" over an 80" span — generally when this occurs, the textured side of the glass is the "cupped" (concave) side.

Installation of components onto substrates

The use of proper materials and the installation of those materials to form the substrate is key to the success and longevity of the UltraGlas component(s) being installed. Since the performance of the component(s) is largely dependent upon the quality of the substrate to which it is bonded, it is important to understand the appropriate recommendations to your specific application.

Substrates — substantial overall support should always be provided as a ‘bed’ for glass surfaces. It is recommended that, at minimum, 3/4” plywood or equivalent in Wonderboard or other substrate material be employed atop this bed. UltraGlas does not recommend the use of supportive “strips” of wood or other materials that provide less than overall support for the glass component(s).

Cantilevered installations — as a general rule, up to four inches, at one or more edges may be left unsupported. However, in no case should more than one-third of the glass be left unsupported. Unsupported glass (particularly the edge of the glass) is vulnerable to a variety of potential threats and, if not supported properly, may contribute to an unsafe installation. When more than 4 inches are to be left unsupported by substrate, bracing components such as corbels and angle supports should be considered.

Inset configurations — glass surfaces may be inset into metal, wood and many other materials.

Adhesives and Setting Materials — most all setting materials, including Thin-Sets that are designed for use with glass may be used. Materials that include Latex additives are particularly suitable as they tend to provide greater grip — and also better accommodate any expansion and contraction of the materials.

Care must be exercised when applying adhesives and setting materials to assure an even overall result — with no voids or air pockets.

For top-mount or under-mount sinks — non-hardening silicone sealants are most common. Under sink support may also be advised, depending upon the size, weight and span of the sink and its components.

Following are Thin-Set mortar systems that have proven effective with UltraGlas products:

Custom Building Products — Premium Plus Thin-Set Mortar with Custom Flex Ultra-Strength Thin-Set Additive.

Hydroment — Tile-Mate Thin-Set Mortar mixed with Hydroment Flex-A-Lastic 447 Mortar Admixture.

Laticrete — 317 Thin-Set Powder mixed with Laticrete 333 Admixture.

Mapei — Kera Bond Thin-Set mixed with Kera Lastic Latex Admixture.

TEC (H.B. Fuller) — Super Flex Performance Universal Latex-Modified Thin-Set Mortar (no admixture is required with this product).

When lighter colors are employed, care must be taken in the selection and application of setting adhesives to assure that, when installed, no evidence of the adhesive remains visible.

Grouting — when grouting is intended, UltraGlas recommends that smaller grout joints (of 1/16” and up to 3/32”) utilize unsanded grouts. When grout joints exceed 3/32”, a sanded grout with a Latex additive is recommended. If sanded grout is used, care must be taken both while spreading and cleaning to avoid scratching the surface — cheesecloth or similar soft cloth is recommended.

Installation of components in 'elevated' configurations

Proper support is key to the success and longevity of the UltraGlas component(s) being installed. The performance of glass component(s) is largely dependent upon the quality and appropriateness of the support hardware used.

Support for elevated components — depending upon intended usage, components should be supported at least every 24 inches. The greater the structural integrity the better.

Wall channels — are an ideal way to support perimeter edges. Care should be taken to assure that channel is sufficient to accommodate any irregularity in the glass shape and thickness.

Sink hole support — special consideration should be given to supporting areas around large holes. Typically, the areas between large holes and glass edges are the most vulnerable. When practical, these areas should be fully supported.

Holes for mounting hardware — to the degree possible, it is always best to avoid the use of holes in unsupported applications. Many hardware options not requiring holes (such as wall-mounted plumbing fixtures) now exist and should be considered. When holes are required, the glass should be insulated from contact with hard materials through the use of neoprene (or other comparable) sleeves and spacers.

Care and maintenance

UltraGlas surfaces can be maintained with the use of mild, non-abrasive glass cleaners. Avoid all products that are likely to etch the glass surface — such as those products containing acid. UltraGlas surfaces need no protective sealers or topcoats, but they may be used if desired.

References

Additional installation information and guidelines may be found by visiting:

Glass Association of North America (GANA) — (www.glasswebsite.com)
For technical information, articles and industry standards.

Americas Glass Association (AGA) — (www.americasglassassn.org)
For products and information.

Tile Council of America (TCA) — (www.tileusa.com) specific documents of interest:
For cement mortar bed installations, see document # TCA C511-02
For cement backer board installations, see document # TCA C513-02
For wood sub-floor installations, see document # TCA F145-02

Ceramic Tile Institute of America — (www.ctioa.org)
For general and specific guidelines, see their [Handbook for Ceramic Tile Installation](#)

For additional information, please contact:



UltraGlas Inc

9200 Gazette Ave., Chatsworth CA 91311
v: 800.777.2332 f: 818.772.8231
UltraGlas.com sales@ultraglas.com