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**extremeconcrete® | eco-sensitive, LEED contributing concrete materials**

Merge Design Company is located in Raleigh, North Carolina and is the exclusive manufacturer of the extremeconcrete® line of materials and products. Merge Design’s mission is to deliver smart, American made and design savvy, LEED contributing concrete products for high impact living, working and entertaining environments. All of Merge Design’s extremeconcrete® materials converts recycled waste stream materials into beautiful, distinctive and never duplicated concrete essentials.

**Disclaimer**

*Please read this guide and the supplied sealer instructions in their entirety prior to receiving your slabs* and contact your Merge Rep if you should have any questions. Due to the nature of our LEED contributing concrete products and the sourcing of recycled and natural materials, differences in color, surface texture, porosity, gauge, dimensional tolerance, aggregate size & distribution, and finish will vary each and every time and are inherent valued qualities of our products. Always inspect slabs before cutting to match like pieces when seaming. Non-structural hairline cracking may occur and handmade characteristics are to be expected. All slabs should be inspected as soon as they are received. Problems should be reported to your Distributor immediately along with the Slab ID #, non-conformity details and digital photos. If the preceding conditions are not followed, fabricators automatically waive their right to exchange any product. This manual shall serve as general guidelines only. The content in this manual is subject to change at any time and without notice.

**Marble Institute of America Standards**

Fabrication and installation of extremeconcrete® slabs is similar to that of most natural stone, engineered quartz and other cement based recycled glass materials. Merge Design recommends following the Fabrication and Installation Guidelines of Marble Institute of America. These guidelines can be found at www.marble-institute.com. For clean and accurate fabrication of extremeconcrete® slabs, we recommend that fabricators use diamond cutting and polishing abrasives as well as wet fabrication techniques. Always wear your Personal Protection Equipment (PPE) while working and following current OSHA rules and regulations.

**Procurement**

All of Merge Design’s extremeconcrete® products are made to order and sold through resellers, distributors or direct from the manufacturer. Visit our website, www.MergeDesignCo.com or call 919-800-7970 to find out who is the representative in your area. Our standard 3cm thick slabs measures 108” X 60” with each slab weighing ~650 Lbs. Custom sizes, thicknesses and colors are available up request. For larger projects it is highly recommended to purchase slabs from the same batch.
Slab Storage & Handling

Always allow the slabs to “breathe” freely. Keep plastic, foam, rubber and other non-permeable material from coming in contact with the finished side of slabs for any extended period of time. Contact from non-permeable materials, i.e. plastic, foam, rubber etc., may leave a very splotchy, undesirable look on the surface. Merge Design is not responsible for mishandling and improper storage of extremeconcrete® slabs.

Your extremeconcrete® slabs are shipped with cardboard spacers. Please remove cardboard spacers as soon as you receive the shipment and prior to storing slabs. Slabs should be kept completely dry and stored indoors vertically on edge and should be placed finished face to finished face. Slabs may warp due to uneven drying on one side, similar to unfinished wood. If needed, loosely clamp slabs together at four equidistant areas to help prohibit movement and warping. Do not apply a lot of clamping pressure because slabs will crack, clamps should be used solely to keep them from warping and should not be used to try to straighten slabs. If slabs do warp and are not straight/flat, please contact Merge Design to discuss straightening procedures prior to storing, fabricating and/or clamping.

Never store slabs outdoors, in direct sunlight or areas of high temperature fluctuations or moisture and make sure to keep finished faces clean and free of any contaminants or materials prior to sealing. When handling slabs, always carry and transport on edge like glass whenever possible. Moving the slabs flat can cause hairline fracturing and possible catastrophic failure. Inspect all slabs upon receipt.

Fabrication

Due to variations in fabrication techniques and equipment it is recommended to experiment with tooling and equipment speeds as well as abrasive types and sizes to determine what works best for the fabrication of concrete slabs. It is recommended to start slower and increase tooling speeds as necessary to avoid excessive dislocation and chipping along the cut edge. Diamond cutting tools are recommended and advised as they produce the best results.

When grinding and polishing, diamond pads are recommended for their superior results. 50 grit pads should be used to remove deep scratches, cutting marks, and for minor shaping. Continue to the next grit levels of 100, 200, 400, 800, 1500 then end with 3000. If a higher polish is desired, you can polish up to 5000 grit and then buff with powders.

For edge polishing, Merge Design recommends a slow progression from coarser to finer grits utilizing 100, 200, 400, 800 and ending with 1500. If a higher polish is desired, you can polish up to 3000 grit and buff. Air holes and voids should be filled with a colored matched grout or travertine fill after the 200 grit stage and then polished after it has cured.

extremeconcrete® | monochrome™ and Xposed™ slabs are finished to a 200 grit for a more natural, matte look. Merge Design recommends radius corners on all cutouts. All inside corners must be shaped to at least 1/4 inch and all outside radii and finished edges must be shaped to at least 1/8 inch. We do not recommend straight edges. This may lead to pop-outs and excessive chipping. At minimum, profile all edges with a standard eased edge to soften up the corners.
Rod Supports and Cutouts

All cutouts must have a front/back support of at least 4 inches. All rails should be fortified with 1/4” steel rods and epoxy at least 20 inches to the left/right of the cutout. Fiberglass mesh and resin can also be used to fortify the slab. All under mount sink cutouts should have the inside edges polished to match the finished edges, we recommend GE II 100% silicone or comparable product for sealing the sinks to the slab. Sinks should be secured with either epoxied clips to the underside of the counter, into a flush mounted subtop or using special sink supports (i.e. Sink Undermounter kit) that mount directly to the cabinets or supporting structure.

Cantilevers & Spans

Cantilevers greater than 10” should be additionally supported by corbels, angle brackets, metal plates, wood substrates or other acceptable means. Unsupported spans greater than 24” require metal rod-ding. Dishwashers should be attached to ancillary wood strips or metal brackets and not directly to the extremeconcrete® material.

Repairs

Clear knife grade polyester, acrylic or epoxy resins should be used to repair holes, cracks, dings, chips and glass/aggregate “pop-outs.” To repair damages, it is best to use the “chipped” piece or popped-out glass in conjunction with a repair resin. Compatible pigments should be used to tint the resin when necessary. Air holes and voids on the cut edges should be filled with a colored matched grout or travertine fill after the 200 grit stage and then polished after it has cured.

Sealing

Merge Design uses and recommends using ICT’s low VOC sealing system for all extremeconcrete® products. It’s recommended to read and follow the supplied instructions prior to application to ensure proper sealing of the material. Call your Merge Rep for a detailed sealing walk-through and more information if needed.

**ICT Sealing system:** CH-Prep, FS Seals and Clean and Set combination by Innovative Concrete Technologies

**Where to purchase:** http://www.buddyrhodes.com/

Phone: 877-706-5303

Finish: Slight color enhance, satin/semi-gloss finish

**Failure to use the above system (or applying the system incorrectly) will result in poor stain resistance.**

Installation

Merge Design recommends following the Installation Guidelines of the Marble Institute of America. These guidelines can be found at www.marble-institute.com. extremeconcrete® surfaces should be shimmed as necessary and installed with a flexible siliconized adhesive. A minimum 1/16th inch gap should be maintained around all edges to allow for expansion/contraction.
Care & Maintenance

Merge Design’s extremeconcrete® products are entirely hand made from natural and recycled materials. Variation in color, surface texture, porosity, gauge, dimensional tolerance, aggregate size & distribution and finish will occur and are considered inherent valued qualities. Nonstructural hairline cracks are possible and shall not be considered a manufacturing defect. All extremeconcrete® products should be sealed with the recommended sealer.

extremeconcrete® products sealed with the manufacturer’s recommended sealer should be cleaned with warm water and a clean, non-abrasive cloth or sponge. You can also use 3 parts water mixed with 1 part distilled vinegar (or any neutral ph cleanser) for daily cleaning. Heavy abrasive cleansers or cleansers containing ammonia or bleach should be avoided. Merge Design’s extremeconcrete® products are not stain-proof. Like all naturally porous materials, (i.e. granite, marble, limestone, slate, soapstone, etc.) there are no warranties against scratching, staining etching or cracking.

Spills should be cleaned up as soon as possible to avoid the risk of permanent staining or etching. Spills from certain products such as red wine, lemons, coffee, etc. as well various chemicals, lotions and creams can permanently etch the concrete if left to remain on the surface for an extended period of time. Etch marks appear lighter in color and cannot be wiped off with any cleaning product. In many cases, this can only be repaired by sanding and resealing the affected area. Unglazed ceramics and terracotta pots should not be used on the eco-sensitive surfaces and can cause permanent discoloration. Oils in particular can penetrate the surface if forced in from the weight of a container.

Wiping up spills as soon as possible will minimize the risk of staining. Keep liquids from pooling on the surface as they may permanently stain the surface.

In the event that a stain forms and is unable to be removed with soap and water, we recommend the use of a stain removing poultice/paste (StoneTech-Extract: www.stonetechpro.com or equal). Once stain is removed, reapply sealer for added protection.

You should expect your new product to show wear and develop a patina with time. Again, remember extremeconcrete® products are stain resistant and not stain-proof. Common sense, good house-keeping and regular cleaning techniques should be practiced.

Merge Design recommends that all newly installed surfaces should be treated delicately for a minimum of fourteen (14) days following the sealing process and installation. Avoid heavy usage and cleaning during this time period.