



# Flat Out® Countertop Mix

## Technical Data Sheet FO-1003

**FOR PROFESSIONAL USE ONLY:** Read all applicable and current product information for your project: Technical Data Sheet (TDS), Color Chart, Installation Guide, Material Safety Data Sheet (MSDS).

MasterFormat™ Guide Specifications, and Butterfield Color Architectural CAD Details and Hatch Patterns are available for the specifier/designer. All information is available online at [www.butterfieldcolor.com](http://www.butterfieldcolor.com)

**1. Description:** Flat Out® Countertop Mix is a fast setting two component cementitious concrete mix. Flat Out® is a glass fiber reinforced, polymer modified, self consolidating mix designed for quick production of pan molded countertops, tabletops, concrete panels, and other architectural pre-cast shapes and pieces. 28 day compressive strength is approximately 11,000 psi.

For truly unique and creative concrete installations, use of Flat Out® can be used with other Butterfield Color products: Uni-Mix® Integral Colorant, Perma-Cast® Shake-On Color Hardener, and Perma-Cast® Sierra Stain™. Note: Perma-Cast® Sierra Stain™ should not be used in areas designed for food preparation.

**2. Limitations:** Flat Out® Countertop Mix can not be troweled to a smooth finish and is not meant for cast in place panels. The bottom of the mold forms the finished surface of the panel.

**3. Packaging:** Flat Out® Countertop Mix is comprised of two components, a dry powder and a liquid polymer. The Flat Out® dry mix is packaged in 55 lb (24.94 kg) bags. The Flat Out® Liquid Polymer is packaged in a 5 gallon pail. Store upright in tightly closed original containers away from sources of heat and combustible materials.

**3.1 Shelf Life:** 1 year in original, unopened containers, in dry storage at room temperature.

**3.2 Freezable:** Do not allow Flat Out® Polymer to freeze. If material freezes do not use. Do not store in

unlabeled containers. Do not reuse empty containers.

**4. Yield:** The yield of one bag of Flat Out® Countertop Mix and mixed with approximately 3.25 quarts of Flat Out® Polymer is .42 cubic feet of cured material.

**5. Preparation:** Be sure all surfaces of the mold are clean and free of any imperfections that you do not want on your finished product. All seams must be tight to prevent seepage of Flat Out® Countertop Mix. If caulk or any other fillers are used on the mold they must be fully cured before the Flat Out® is poured. The Flat Out® Countertop Mix and Flat Out® Polymer should have a material temperature of between 70° and 80° Fahrenheit. Estimate the usage of Flat Out® to be used in mold and have the correct amount of Flat Out® Polymer and Uni-Mix® Integral Colorant (if desired) pre-measured. No more than 5 minutes may elapse between mixes to prevent cold joints.

**6. Mixing:** The mixing ratio is approximately 3.25 quarts of Flat Out® Polymer to one 55lb bag of Flat Out® Countertop Mix. To achieve a proper mix, add 2.75 quarts of Flat Out® Polymer to a clean 5 gallon bucket, retaining the additional ½ quart of polymer for later addition. If color is to be added to the mix, a Uni-Mix® Color Pack should be added to the 2.75 quarts of Flat Out® Polymer at this time and mixed with a 600 rpm drill type paddle mixer. After the Flat Out® Polymer and Color Pack have been thoroughly mixed, slowly add the 55 lb bag of Flat Out® Countertop Mix. Once the material has mixed continuously for two minutes

add the additional ½ quart of polymer and mix for an additional one minute. The mixing paddle should be kept totally submerged in the mix to avoid entrapping air in the mix which can cause voids and pinholes in the finished piece.

**7. Placement:** Pour mixture immediately into the center of the already prepared level mold. Work the material to the edges of the mold by puddling the mixture with a float or gloved hand. If multiple batches of material are required due to the size of your piece no more than 5 minutes may elapse between placement of each batch. Once mixture has been consolidated it should be screeded level and covered with foam insulation to retain heat and moisture for an even cure.

**8. Reinforcement:** The use of steel reinforcement adequate to support both dead load and live load is required on any piece, shape, or structure that is unsupported or cantilevered out from the edge of a supporting structure or is used to support the weight of any person or persons. Lack of adequate reinforcement could cause bodily harm or death if a piece shape or structure should break and fall. Reinforcement should be kept 1/2 inch or greater from the finished surface to avoid shadowing.

**9. Demolding:** Piece may be demolded after 3 hours of cure time at 70° Fahrenheit. At lower temperatures, the demolding time is extended. Gloves should be worn when handling any finished pieces as the edges may be sharp and to avoid oil from your skin discoloring the finish before sealing.



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**10. Finish:** If grinding and polishing is required wait a minimum of 8 hours after de-molding. Use of a lithium silicate densifier and a final polish is recommended to increase stain resistance. Follow manufacturer's recommendations for use. Surface may be densified and polished without grinding. Wait a minimum of 72 hours prior to application of any stain product. Use of an FDA approved sealer should be used for all food preparation areas.

**11. Maintenance:** Periodically inspect Flat Out® product surfaces for wear or damage. All concrete curing and sealing compounds will eventually exhibit the affects of weathering and abrasion. For maximum coating life and performance, wipe up all spills as soon as possible. Remove abrasive debris by wiping or vacuuming. Do not drag, drop or place sharp edges on surfaces. Do not place extremely hot items directly on the surface. Periodic washings with mild detergents will help maintain surface luster. Do not use solvent or acid based cleaning materials for general cleaning. Prior to recoating Flat Out® pieces with sealer or wax type finishes, the surface must be clean, dry, and free from cleaning product residue or other contamination and loose materials, which will affect the adhesion of seal or wax.

**12. Quality Control:** Cast a job site sample at least 10 days prior to the installation for approval of color and

finish. Utilize all materials, tools, and techniques for the actual job in the mock-up. Consistent batching, pouring, finishing, curing, sealing, and preparation techniques, will ensure the uniformity of Flat Out® concrete pieces. Future maintenance requirements should also be discussed.

**WARNING:** THIS PRODUCT CONTAINS SILICA (CRYSTALLINE QUARTS) AND PORTLAND CEMENT. DO NOT BREATHE DUST. PROLONGED EXPOSURE CAN RESULT IN SILICOSIS. PORTLAND CEMENT MAY CAUSE ALKALI BURNS. USE WITH ADEQUATE VENTILATION. ALWAYS USE PROTECTIVE GLASSES, GLOVES AND DUST MASK (NIOSH/MSHA TC 21C APPROVED). IMMEDIATELY AFTER USE WASH ANY AREA OF EXPOSED SKIN. IF CONTACT IS MADE WITH EYES FLUSH THOROUGHLY WITH WATER, DO NOT RUB. IF INHALED, MOVE TO FRESH AIR. IF SYMPTOMS DEVELOP OR PERSIST, OR IF INGESTED, SEEK MEDICAL ATTENTION. READ MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR USING. **KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY.** THE USE OF STEEL REINFORCEMENT ADEQUATE TO SUPPORT BOTH DEAD LOAD AND LIVE LOAD IS REQUIRED ON ANY PIECE, SHAPE, OR STRUCTURE THAT

IS UNSUPPORTED OR CANTILEVERED OUT FROM THE EDGE OF A SUPPORTING STRUCTURE OR IS USED TO SUPPORT THE WEIGHT OF ANY PERSON OR PERSONS. LACK OF ADEQUATE REINFORCEMENT COULD CAUSE BODILY HARM OR DEATH IF A PIECE, SHAPE OR STRUCTURE SHOULD BREAK AND FALL.

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