

# Buddy Rhodes™ Concrete Countertop Mix

## Buddy's Legacy Formula—Replaced by Craftsman Mix



### Product Overview

Countertop Mix is Buddy's original formula. It contains no integral curing polymer, so we recommend the addition of Buddy Rhodes Liquid Polymer Plus to any mix recipe.

**New Generation Available:** we developed the Buddy Rhodes Craftsman Mix as the next generation countertop blended mix and it can replace the Countertop Mix in all respects.

### Preparation - Getting Ready to Mix

Have all ingredients assembled before you start. Wear vinyl or nitrile gloves and protective eye wear. Use an accurate scale for weighing components. Use materials between 50°F and 90°F (10°C - 32°C). Colder temperatures will slow the reaction and warmer temperatures will accelerate it. Once the temperature of the mix reaches 70°F (21°C), the reaction begins to accelerate. Using a laser thermometer to monitor, keep the temperature of the mix near 60° F (15° C). In warm environments, substitute up to 50% of the water with ice. Countertop Mix has a shelf life of one year after purchase if kept in a dry, moisture free environment. Once opened, the material should be used as soon as possible.

### Mixing Instructions

Use clean, potable water and clean mixing vessels. Use a handheld mortar mixer to mix. If mixing on a regular basis or for a large project, investing in a vertical shaft mixer may be justified.

- If adding pigment, combine water, Liquid Polymer Plus and pigment and mix thoroughly.
- Slowly add dry ingredients while mixing. Mix until fully blended.
- Add water reducer in small doses until the desired consistency is achieved. Once the amount of water reducer has been determined, that dosage should be added to the mix water on subsequent batches for the day.

For Backer Mixes:

- Slowly add Alkali Resistant (AR) Glass Fiber to the thoroughly mixed material. Blend until homogeneous. Temper with water reducer as needed for desired consistency. Mixing too long or at too high a speed after fiber has been added can filamentize or damage the fiber, resulting in placement issues and reduced strengths.

### Product Specifications

**Packaging:** 50 lb (22.7 kg) bag

**Color:** Bone White

**Coverage:** 5 ft<sup>2</sup> at 1" thick  
(0.5 m<sup>2</sup> at 2.5 cm thick)

**Total Cementitious Binder:** 17 lb (7.71 kg) per bag

**Compressive Strength (ASTM C-109)\***

1 day - 6,431 psi (44.34 MPa)

28 day - 10,114 psi (69.73 MPa)

Test pieces should be prepared to ensure that the product is suitable for the intended use. This will also familiarize you with the material.

\*Test samples made with base mix without reinforcement. Results are not to be used for design or control purposes. The values achieved in practice will be dependent on mix design, quality control of materials, fabrication process and curing.

### Mixing Recipes for Countertop Mix

	Countertop Mix	Polymer	Water	Water Reducer (WR)	Reinforcements / Aggregate
<b>Pressed</b>	50 lb (22.7 kg)	2 lb (0.91 kg)	5.2 lb (2.36 kg)	0 - 5 ml WR 444	1.5 - 1.75 lb (0.68 - 0.79 kg) AR Glass Fiber (Backer only)
<b>Trowelled</b>	50 lb (22.7 kg)	2 lb (0.91 kg)	5.2 lb (2.36 kg)	WR 444 to taste	20 g Acrylic Fiber AC50 (trowelled surface only) 1.5 - 1.75 lb (0.68 - 0.79 kg) AR Glass Fiber (Backer only) Or: 14 lb (6.3 kg) 3/8" (1 cm) Aggregate (Backer Only) <b>Do not combine AR fiber and aggregate.</b>
<b>Cast</b>	50 lb (22.7 kg)	2 lb (0.91 kg)	5.2 lb (2.36 kg)	150 - 300 ml WR 555	0.1-0.5 lb (45 - 227 g) PVA 15, PVA 100 or AC50 Fiber

## Casting Techniques

**Press Technique** - This technique is achieved by adding as little water as possible to create a dry, clay like mix, which is then hand packed into the mold. Because the mix is so dry, voids are created naturally during placement. This results in a veined look, unique to every piece. Typically, a thin surface layer is pressed into the form, followed by a backer mix containing AR Glass Fiber. This gives the piece the necessary structural reinforcement.

When using the press technique, you will have voids that you may want to fill. Use Buddy Rhodes Bone Paste Plus to fill these voids with one color, or multiple colors. Allow to cure (typically overnight), then polish.

**Trowel Technique** - This technique is used to make pieces with the finished side facing up. Forms can be built to make precast elements, or cast in place countertops. Cast the material into the forms and use a wood or magnesium float to level the product with sweeping or circular motions. This initial processing stage can last several hours, be patient. Once the surface is firm, a steel trowel may be used to accent the top further. Caution: If a steel trowel is used too soon, air may be trapped beneath the surface, creating a weak, "egg-shell" layer that may flake off once cured. Find more information on the trowel technique on our website.

**Cast Technique** - This technique (pour and vibrate) is fairly straight forward. Build a watertight mold and pour in the concrete. If mixed properly and vibrated well, a good clean surface can be achieved free of any air pockets or bug holes. For an aesthetic that includes pits and holes, minimize your water reducer and/or vibration.

## Curing

In order to ensure that concrete reaches its maximum potential, keep the concrete warm and moist while curing. Ambient temperature should be kept at a minimum of 50°F (10°C). A layer of moist felt or fabric followed by plastic sheeting will keep the moisture from escaping. This is often covered again by blankets or insulation to keep the heat from leaving the matrix. Using a felt layer is especially important on troweled finishes, since plastic placed directly on them is likely to leave discolorations. Demold after 24-48 hours, depending on shop conditions.

## Polishing

Polishing can be done wet or dry. We recommend wet polishing as it will provide a finish true to the grit used and it reduces the risk to your health. To maintain the cream layer, lightly polish the concrete using pads that are 200 grit or higher. The higher grits produce higher sheen. To expose your sand (salt and pepper look) or any decorative aggregate, begin grinding with coarser grit pads, progressing to finer grits until reaching the desired sheen and aggregate exposure.

## Sealing

Concrete is an inherently porous material and needs to be sealed for particular environments and uses. Choose the sealer that best fits the needs of the finished piece and the skill level of the person applying it. Buddy Rhodes offers a variety of sealer options, which can be found on our website.

### Safety

#### KEEP OUT OF REACH OF CHILDREN

Avoid prolonged exposure to dust created while mixing. Use a NIOSH approved respirator if threshold limit values are unsafe. Dust collection systems are recommended to maintain a safe working environment.

Wear nitrile or vinyl gloves and safety eye protection while handling the material. Follow all safety instructions from mixing equipment manufacturer.

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