

MC250/350 Curb Mix Information



General Information

There are two (2) basic material formulas for decorative curbing. The most commonly used mix is referred to as "curb mix". This mix resembles mortar in that it is comprised of sand, Portland cement, fiber and water. This mix does not have the 28 day strength of conventional concrete mixes. The advantage of using curb mix is that it trowels easily and can be finished immediately after being placed. As the curb is a homogeneous mix, placing expansion joints is easy.

A concrete mix provides a much stronger product, usually exceeding 3,000 psi at 28 days. However, greater skill is required to finish the curb. Whether the concrete is placed as a slab or a curb, the time between placement and finishing is longer than with a curb mix. The bleed water needs to come to the surface before the curb can be troweled. The curb needs to be troweled to bring the fines to the surface and work the aggregate below the surface. Cutting expansion joints in concrete curb requires practice as the aggregate provides resistance when making the cut.

Recommended Mix Specifications for "Curb Mix" (Note: this mix does not have the 28 day strength of a true concrete mix.)

Ingredients:

- Coarse sand
- Portland type I cement
- Fiber
- Water

A batch of curb mix made in a 6 cu ft mortar mixer will produce 15' - 20' of curb, depending on the cross sectional area of the curb being laid.

The following mixing instructions call for the sand and Portland cement to be mixed dry to ensure uniform consistency. However, there are numerous "recipes" for curb mix that vary the sand/cement ration and when to add water. Too much



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Portland cement and the mix will have a "goosey" consistency and be difficult to work. Too little cement may result in a curb that will not stand and/or has little strength

Mixing Instructions

- Divide the 94 lb. bag of cement equally into two (2) five gallon buckets
- Start mortar mixer in accordance with the manufacturer's instructions. Concrete mixers are not recommended for this dry application.
- Place two (2) buckets of sand into the mortar mixer
- Place a small handful of fiber into the mix
- Place one (1) five gallon bucket of Portland cement into the mixer
- Mix ingredients for at least two minutes
- Place two (2) more 5 gallon buckets of sand into the mixer
- Add water sparingly until desired consistency is reached. The amount of water required will depend on the moisture content of the sand. Allow mixer to mix ingredients for at least 15 seconds.
- Dump into a wheelbarrow and transport to the machine.

The mix should be very dry, 0-1" slump. Just enough water should be added to activate the cement. To test the mix, scoop a handful into your hand and squeeze to form a ball. When you release your hand the ball should stay intact and your hand should be almost dry. If the ball does not stay together (too dry) add a little water at a time until the proper consistency is reached. If your hand is wet with water (too wet) add additional sand and cement in small amounts until the proper consistency is reached. The sand to cement ratio should range between 3:1 and 5:1.

Recommended Mix Specifications for Concrete Curb

It is recommended that Grade 1 concrete be used. Grade 1 concrete is used for foundation walls, footers, etc., and has a 28 day strength of 2500-3000psi. The extruded curb provides the resistance that allows the machine to move itself forward through the extrusion process. If the mix is too wet the curb may slough off and not provide sufficient resistance for the machine to move itself forward.

Use QUICKCRETE Concrete Mix #1101 or a similar product. Product can be mixed by hand in a wheelbarrow, mortar tray or in a mortar mixer. For each 80 lb bag of concrete mix add 3-1/4 to 3-1/2 quarts of water. Mix thoroughly. The finished mix will be very dry. Do not add too much water or the curb may not stand.

To determine the lineal inches of curb that one 80 lb bag of concrete mix will make, divide the number 513 by the cross sectional area of the curb. For instance with a form of 22 square inches (LFD-0002), one 80 lb bag of mix will make approximately 23 lineal inches of curb ($513/22=23.3$).

