

# 5000 PLUS CONCRETE MIX

## DIVISION 03 31 00 – STRUCTURAL CONCRETE



### KNOW YOUR MIX

When you need more strength and superior workability, 5000 Plus is your mix. With higher cement content than standard concrete, this pro-grade mix is 20% stronger and smoother under the trowel and delivers rapid strength gain to get the job done faster.



**OPEN TO FOOT TRAFFIC  
IN 12 HOURS**  
2X FASTER\*



**APPLICATIONS  
2" +**



**FINAL  
STRENGTH**  
25% STRONGER\*



**C387**

\*Than regular concrete

### TECHNICAL DATA

PACKAGE SIZE	YIELD	WATER REQUIRED	SLUMP RANGE
50 lb 22.7 kg	0.38 ft <sup>3</sup> 0.011 m <sup>3</sup>	2.1 qts 2.0 L	2 – 3 in 50 – 75 mm
60 lb 27.2 kg	0.47 ft <sup>3</sup> 0.013 m <sup>3</sup>	2.5 qts 2.4 L	2 – 3 in 50 – 75 mm
80 lb 36.3 kg	0.6 ft <sup>3</sup> 0.017 m <sup>3</sup>	3.5 qts 3.3 L	2 – 3 in 50 – 75 mm

To determine coverage: Multiply Length (feet) x Width (feet) x Thickness (inches) and divide by 12. Then divide by the yield in the chart above to determine the numbers of bags needed. See Calculator on Sakrete.com for additional assistance. Yield and water are approximate.

COMPRESSIVE STRENGTH - 3 DAY	COMPRESSIVE STRENGTH - 7 DAY	COMPRESSIVE STRENGTH - 28 DAY	ASTM STANDARDS
2,500 psi 17 MPa	3,500 psi 24 MPa	5,000 psi 34 MPa	ASTM C387 ASTM C39

#### LEED Eligibility:

Regional Materials (MR-c5)  
Recycled Material (MR-c4)

### PRECAUTIONS

Air, mix, and substrate temperatures should be between 40° F (4° C) and 90° F (32° C) and no rain in the forecast for 24 hours. For applications outside of this range of conditions, contact the Sakrete Technical Support Team.

- Colder temperatures or higher humidity conditions will retard set times.
- Use only clean mixing containers and tools.
- Do not over trowel.
- Do not overwater.
- Do not add anything other than clean potable water or Sakrete Bonder & Fortifier.
- Protect from freezing for 48 hours.

NOTE: Proper application and installation of all Sakrete products are the responsibility of the end user.

**ESTIMATE  
YOUR JOB**



**SAKRETE.COM/  
CALCULATORS**



## PREPARATION/APPLICATION

For best results all materials should be stored between 40°F (4°C) and 80°F (27°C) 24 hours prior to installation.

### REFER TO:

- ACI 302.1 Guide for Concrete Flooring and Slab Construction
- ACI 304.1 Guide for Measuring, Mixing, Transportation and Placing Concrete
- ACI 305R Guide to Hot Weather Concreting
- ACI 306R Guide to Cold Weather Concreting

NOTE: It is the responsibility of the installer/applicator to ensure the suitability of the product for its intended use.

## MIXING

1. For projects requiring multiple bags, a mechanical mixer is recommended. Turn the mixer on and add the recommended amount of water shown in the table.
2. Empty the concrete mix into the mixer. If the mix is too stiff or dry, add additional water to achieve a forming consistency. Avoid excess water that results in a flowable mix. This will result in decreased strengths and durability.
3. 5000 Plus Concrete Mix can also be hand-mixed using a wheelbarrow or mortar pan. Pour the dry mix and form a crater in its center. Add water (refer to table) to the crater.
4. Mix using a garden hoe or shovel until a stiff forming consistency is achieved.
5. Ensure that the concrete is mixed thoroughly with no dry pockets/lumps.
6. If a concrete cone is being used, the recommended slump is 2" to 3" (50 mm to 75 mm) to achieve the published strengths.

## APPLICATION: POSTS & POLES

1. If the pole or post will be load-bearing, consult with your local building code requirements before proceeding.
2. Dig a hole to the required depth and diameter. A general rule of thumb is that the depth should be 1/3 the length of the post or pole and the diameter should be 3 times that of the pole or post).
3. Place 3-4 inches of gravel at the base to help with drainage.
4. Place the post or pole in the center of the hole.
5. Level and support the post or pole in place.
6. Fill the hole with mixed concrete and consolidate by rodding.
7. Over fill the hole to slope the concrete at the surface, allowing water to drain away.
8. Wait a minimum of 24 hours before posts or poles are subjected to any strain.

## APPLICATION: FLAT WORK (SLABS)

1. Stake out the area where the concrete will be placed and remove all soil, grass, debris, etc.
2. For improved drainage, place several inches of gravel into the excavated area. Remember to allow enough depth for both the gravel and a minimum of 4" (102mm) of concrete.
3. Pre-treat forms with a release agent to prevent water absorption and for the ease of removal.
4. Place forms in the desired area, ensuring that they are level, square, and that all corners are sealed so no material can outflow.
5. Place the mixed concrete into the forms to full depth.
6. Fully fill the form, working the mix into corners and compacting to minimize voids.
7. Using a straight edge, strike the surface level with the top of the forms using a sawing motion.
8. Use a float to smooth the surface and remove any imperfections. Use an edging tool to smooth the edges along the forms.
9. Using a concrete grooving tool, cut joints into the concrete every 3-4 ft. (.9-1.2 m). Expansion joints should be placed every 8 ft. x 12 ft. in each direction and must extend through the entire depth of the slab.
10. Once concrete has stiffened slightly, a broom finish can be applied. Forms can be removed after 12 hours.

## APPLICATION: REPAIRS

1. Surfaces to be repaired must be sound, dimensionally stable, and clean.
2. Slick or sealed surfaces must be roughened to an ICRI CSP of 3 to 5.
3. Sides of repair area must be squared.
4. Clean all reinforcing steel to bare metal and coat with a rust preventative if not covering within 8 hours.
5. Clean and remove all loose materials and debris.
6. All surfaces that will come in contact with the concrete mix should be brought to a SSD (Surface Saturated Dry) condition.
7. Fill the repair area fully and compact the mixed material with a float to ensure there are no voids.
8. Use the float to remove any surface imperfections and to achieve the desired finish.



### **APPLICATION: COUNTERTOPS**

1. The higher strength provided by 5000 Plus High Early Strength Concrete Mix allows it to be used in making concrete countertops as thin as 1.5" (38 mm). Place the concrete into the forms to full depth.
2. Fully fill the form, working the mix into corners and compacting to minimize voids.
3. Using a straight edge, strike the surface level with the top of the forms using a sawing motion.
4. Use a float to smooth the surface and remove any imperfections
5. The process used for finishing depends upon the desired result. The Concrete can be mechanically polished, stained and sealed.
6. Countertops used in kitchens or in areas where food will be present should be sealed with sealers that are specifically designed and FDA approved for that purpose.

### **CURING**

1. Proper curing is critical for sound results. After the concrete is set, it must be kept continuously moist for 3-5 days and kept from freezing for 48 hours.
2. Covering the concrete slab with plastic is a practical way to help retain moisture. Place plastic after the concrete has set. If the surface begins to appear dry, remove the plastic, moisten the surface, and replace it.
3. If temperatures are predicted to go drop below 40° F, tenting and heating the area are required.
4. New concrete can be opened to foot traffic in 12 hours and vehicular traffic in 72 hours.

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For current and complete product information, contact SAKRETE Technical Services toll-free at 866-725-7383 or visit [Sakrete.com](http://Sakrete.com)



## SAFETY

For additional information, call the manufacturer at 866-725-7383 or Chemtrec at 800-424-9300 or 703-527-3887. Refer to Safety Data Sheet (SDS) for further information. **KEEP OUT OF THE REACH OF CHILDREN.**



## DANGER

### HAZARD STATEMENT

Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May cause cancer. Causes damage to organs (lungs) through prolonged or repeated exposure.

### PRECAUTIONARY STATEMENTS

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands, forearms and face thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. If exposed or concerned: Get medical advice/attention. If on skin: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor. Store locked up. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

**CONTAINS:** Portland cement

**⚠ WARNING:** This product can expose you to Crystalline Silica and Lithium Carbonate, which is known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## LIMITED PRODUCT WARRANTY

The manufacturer warrants that this product shall be of merchantable quality when used or applied in accordance with the manufacturer's instructions. This product is not warranted as suitable for any purpose other than the general purpose for which it is intended. This warranty runs for one (1) year from the dates the product is purchased. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS PRODUCT IS LIMITED TO THE DURATION OF THIS WARRANTY. Liability under this warranty is limited to replacement or defective products or, at the manufacturer's option, refund of the purchase price. CONSEQUENTIAL AND INCIDENTAL DAMAGES ARE NOT RECOVERABLE UNDER THIS WARRANTY.