



Pro-Mix™ Accelerated Concrete Mix is a commercial grade fast-setting concrete, designed to provide high early strength for concrete work requiring quick return to service with a minimum application thickness of 2 in. (51 mm). Pro-Mix Accelerated Concrete Mix has low shrinkage, high durability and is non-metallic.

Features and Benefits:

- Fast job turn-around; back to service in 1 hour
- Non-metallic
- High early compressive strength, reaches >3,000 psi (20.7 MPa) in 1 hour after final set
- High durability
- >7,000 psi (48.3 MPa) at 28 days
- Exceeds ASTM C387/C387M for high early strength concrete
- Ideal for projects requiring small structural concrete applications.

Uses:

- Structural applications, full depth or repairs:
- Highways
 - Structural piers
 - Bridge decks
 - industrial floors
 - Foundations and footings
 - Balconies
 - Parking garages

Yield/Coverage:

Approximate Coverage	Water
0.38 ft ³ (0.01 m ³)	2.75 - 3.0 qts (2.6 - 3.1L)

Packaging:

Available in 50 lb. (22.7 kg) Bags

Technical Data

Slump Range: 2-3 in. (25-75 mm)

Set Time (ASTM C403):

Initial Set	15
Final Set	25

Compressive Strength, psi (ASTM C39):

1 hour	>3,000 psi (20.7 MPa)
3 hours	>3,500 psi (24.1 MPa)
1 day	>5,000 psi (34.5 MPa)
7 days	>6,000 psi (41.4 MPa)
28 days	>7,000 psi (48.3 MPa)

NOTE: All PSI refer to 1 hour after final set time

Slant Shear (ASTM C882):

24 hours	>1900 psi (13.1 MPa)
28 days	>4450 psi (30.7 MPa)

Flexural (ASTM C78):

7 day	>1200 psi (8.3 MPa)
28 day	>1300 psi (8.96 MPa)

Splitting Tensile (ASTM C496):

7 days	>650 psi (4.5 MPa)
28 days	>750 psi (5.2 MPa)

Length Change (ASTM C157):

28 day air	<0.050
28 day wet	<0.01

DIVISION 3:

Structural Concrete – 03 31 00
Rigid Pavement Repair – 32 01 29

LEED Eligibility:

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

Color:

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

Preparation

Concrete:

1. All materials should be stored between 40°F (4°C) and 80°F (27°C) 24 hours prior to installation.
2. All surfaces must be clean, stable, solid, and structurally sound. Remove all unsound concrete, grease, oil, dirt, paint, sealers, curing compounds, waxes and any other foreign materials that will inhibit adhesion.
3. Substrate surface should be roughened and brought to a saturated surface dry (SSD) condition with clean potable water.

Forming:

1. Forms must be sealed to prevent material from escaping.
2. Release agents are recommended for pre-treating wood form surfaces that can absorb moisture. The design of the form work should take into consideration the consistency of the mix, the method of placement and the distance the material must travel.
3. Form sides must be squared off.

Refer to:

ACI 302 Guide for Concrete Flooring and Slab Construction

ACI 304 Guide for Measuring, Mixing, Transportation and Placing Concrete

Mixing

1. Add approximately 2.75 - 3.25 quarts (2.6 - 3.1L) of cool, clean potable water per 50 lb. (22.7 kg) bag to the clean mixer. Always add powder to the liquid for easier blending.
2. Turn on the mixer and begin adding the bags of concrete. Addition of cold water at high temperatures or warm water at low temperatures will aid in adjusting the mix temperature.
3. Mix for 1-3 minutes to a lump free consistency.
4. If the material becomes too difficult to mix, add additional water, until a workable mix is obtained. If a slump cone is available, adjust water to achieve a 2-3 in. (25-75 mm) slump, but do not over-water as this will reduce strength and increase permeability.
5. Do not re-temper, exceed water limits or add any materials other than clean, potable water.
6. Clean mixer often to prevent buildup of material.

Placement

1. Ideal application conditions are when air, material, and substrate temperatures are between 50– 90°F (10 – 32°C) within 24 hours of application and placement, and when rain is not in the forecast for 24 hours after placement.
2. Set times will vary in extremely hot or cold conditions. Do not apply over concrete cured less than 28 days or surfaces that are frozen or contain frost.
3. Dampen the sub-grade before concrete is placed. Do not leave standing puddles. Place the mixed concrete immediately into pre-dampened area using a method to assure consolidation eliminating air voids. Maintain a minimum thickness of 2 in. (51 mm).
4. Once the mixture has been compacted and spread to completely fill forms or patch, strike off immediately with a straight board or screed, moving the edge back and forth with a saw-like motion.
5. Use a bull float immediately to level any ridges and fill voids left by the screed.
6. Cut the concrete away from forms by running an edging tool or trowel along the forms to compact the slab edges.
7. Cut 1 in. (25 mm) control joints into the slab every 6-8 ft. (1.8-2.4 m) using a grooving tool. For repair overlays, do not bridge over existing expansion or control joints.
8. Concrete shall be used and placed in final position within 15 minutes after initial mixing or discarded at that time.
9. Do not wait for water to evaporate from the surface. Begin finishing with a trowel or broom immediately.

Notes & Limitations

1. Mix with clean water only, do not add accelerators, retarders, or bonding additives.
2. Do not add aggregate.
3. Do not over-water. Do not exceed water limits listed when mixing.
4. Set times will fluctuate in extremely hot or cold weather. Use cold water (that is iced) in severely hot weather. Use hot water not exceeding 120°F (48°C) when mixing in severely cold weather.
5. Do not use for repairs less than 2 in. (51 mm).
6. Do not mix more material than can be placed in 15 minutes.
7. Do not apply to surfaces that are frozen or contain frost.
8. Protect concrete from freezing during the first 48 hours after placement.
9. Clean trowel frequently during application.
10. Do not over-work or over-trowel.
11. Always comply with the steel reinforcement requirements of applicable building codes for structural applications.
12. The use of salts or de-icing chemicals are not recommended during the first winter season following installation.
13. As with all cementitious materials, avoid contact with aluminum to prevent adverse chemical reactions and possible product failure.
14. Follow all industry standard safety procedures when working with concrete products including wearing impervious gloves, such as nitrile when handling.
15. Pro-Mix Accelerated Concrete Mix should be installed in accordance with local building code provisions and all applicable ASTM standards. Good workmanship and proper detailing & design assures durable, functional, water tight construction.

Curing

1. Curing means maintaining proper moisture and temperature to increase the strength and durability of concrete and is one of the most important steps in concrete construction.
2. Under hot and windy conditions, all concrete tends to lose moisture unevenly and may develop plastic shrinkage cracks. When weather is too hot, dry or windy, water is lost by evaporation from the concrete, and hydration stops, resulting in finishing difficulties and cracks. In such cases, concrete can be moist cured by a gentle mist of water applied to the surface or covering the concrete surface with clean wet burlap or flat-laid plastic sheeting.

3. Curing should be started as soon as possible without damaging the concrete finish and should continue for a period of 5 days in warm weather at 70°F (21°C) or higher or 7 days in colder weather 50 – 70°F (10 – 21°C).
4. In near freezing temperatures the hydration process slow considerably. Protect concrete from freezing during the first 48 hours; if temperatures are expected to fall below 32°F (1°C), plastic sheeting and insulation blankets should be used.
5. The final appearance will be affected by the curing method used. Coverings such as burlap or plastic sheets may affect the color in spots.

Refer to:

ACI 308 Standard Practice for Curing Concrete

Clean Up

Use warm, soapy water for cleaning hands and tools while product is wet. Sakrete Concrete Dissolver can be used if dried or hardened on tools and equipment.

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

Safety

READ and UNDERSTAND the Safety Data Sheet (SDS) before using this product. WARNING: Wear protective clothing and equipment. For emergency information, call CHEMTREC at 800-424-9300 or 703-527-3887 (outside USA). KEEP OUT OF REACH OF CHILDREN.



DANGER

HAZARD STATEMENT: Harmful if swallowed. Causes skin irritation. Causes serious eye damage. May cause an allergic skin reaction. May cause cancer. May cause respiratory irritation. Causes damage to lungs through prolonged or repeated exposure.

PRECAUTIONARY STATEMENTS: Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Do not breathe dust. If exposed or concerned: Get medical advice/attention. If swallowed: Immediately call a poison center/doctor. Rinse mouth. 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/doctor. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor if you feel unwell. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents and container in accordance with all local, regional, national and international regulations

WARNING: Cancer and Reproductive Harm - 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.

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