

Technical Data Sheet



High Strength Rapid Setting Concrete Repair

APUN®

ALASKRETE®



ALASKRETE® is a unique magnesium phosphate based high strength rapid setting concrete repair system. ALASKRETE® chemically bonds to old and new concrete, itself and most construction materials including steel, wood and asphalt. ALASKRETE® does not use water and can be applied at virtually any temperature.

ALASKRETE® was specifically designed for the repair of concrete pavements, bridge decks, airport runways and taxiways and overlaying of concrete surfaces.

TYPICAL PROPERTIES

Rapid set time. Resume traffic in less than an hour.

Application temperature: -15°F to 200°F

Virtually impermeable at <1% porosity

Freeze/thaw resistant

Salt resistant

No shrinkage

Yield: 1 bucket (50lbs) = .42ft³ or 5ft² at 1 inch thick
1 bulk kit (2500lbs) = 23ft³ or 275ft² 1 in thick

Set Time, minutes:

Initial	3 to 11
Final	15 to 22
Open to Traffic:	45 to 75

Compressive Strength:

After 1 hour (psi)	2,500 to 3,000
After 1 day (psi)	3,000 to 4,000
After 3 days (psi)	5,000 to 6,000
After 7 days (psi)	4,500 to 5,000
After 28 days (psi)	5,000 to 6,000
After 1 year (psi)	12,000 to 13,000

SPECIFICATIONS meets or exceeds ASTM C928

Results provided by independent testing laboratory and represent typical values.

Setting Time (ASTM C807)

Initial Set	12 minutes
Final Set	28 minutes

Compressive Strength (ASTM C109)

1 hour	2000psi
3 hours	2500psi
1 day	3700psi
4 days	4400psi
7 days	4900psi
28 days	5300psi
1 year	13,500psi

Bond Strength (ASTM C882)

4 day	2600psi
7 days	850psi
28 days	900psi

Flexural Strength (ASTM C348)

1 day	800psi
4 days	1100psi
7 days	1200psi
28 days	1300psi

Freeze-Thaw Durability (ASTM C666)

100% Durability Factor after 300 cycles

Scaling Resistance (ASTM C672)

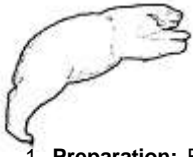
Visual Rating	0
Mass Loss	0

Length Change (ASTM C157)

56 day length change -0.001

For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

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- 1. Preparation:** For best results, surface must be clean, dry and free from loose material. Remove all dirt, blacktop tar, and oil substances from the area to be covered, leaving a rough clean surface.
- 2. Forms:** If forms are needed, use plastic or Formica.
- 3. Mixing:** To mix material, add aggregate to activator and mix thoroughly. Add only enough activator to obtain the consistency desired for the application. Mix 1 gallon of activator to 45lbs of aggregate (approximately 1:5 ratio). Consistency of material can be adjusted without affecting cure or bonding properties. Mix thin for self leveling applications or thick for sloped applications. Material should be mixed immediately prior to placement and should be completed as soon as possible.
- 4. Deep Pours:** For repairs greater than 1inch in depth, ALASKRETE EXTENDED® with pea gravel can be used. For large applications, use HOT WEATHER MIX to manage the set time for additional working time.
- 5. Very Shallow Pours:** For very thin repairs, ALASKRETE FINE® can be used for light feathering or transitioning.
- 6. Water:** Work areas can be damp, however, standing water should be removed. Water should not be used to dilute the liquid or to adjust consistency of ALASKRETE®.
- 7. Cold Weather Application:** Set-up time will be longer in colder applications. For those applications where the application temperature is less than 35°F use COLD WEATHER MIX (one 1lb package per 45lbs of ALASKRETE® increases the cure speed by approximately 10 minutes) to accelerate the set time of the mixed material. Addition of the winter additive should be made after the ALASKRETE® has been thoroughly mixed, and just prior to the application or pouring of the ALASKRETE®.
- 8. Warm Weather Application:** For applications where the application temperature is greater than 74°F, use HOT WEATHER MIX (one 1lb package per 45lbs of ALASKRETE® decreases the cure speed by approximately 10 minutes) to manage the exothermic reaction and the working time of the mixed material. The summer additive should be thoroughly mixed into the liquid portion of the ALASKRETE®. The ALASKRETE® can then be mixed, and applied/poured.
- 8. Clean-up:** Keep an adequate supply of water on hand to wash mixer and tools as soon as set begins 9 to 15 minutes at 68°F.

Not for product specifications

The technical data contained herein are intended as reference only. Please contact your local quality department for assistance and recommendations on specifications for this product.

Storage

Store product in the unopened container in a dry location. Storage information may be indicated on the product container labeling.

Optimal Storage: 46°F (8°C) to 70°F (21°C).

Material removed from containers may be contaminated during use. Do not return product to the original container. APUN LLC cannot assume responsibility for product which has been contaminated or stored under conditions other than those previously indicated. If additional information is required, please contact your local Technical Service Center or Customer Service Representative.

Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Apun LLC specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Apun LLC's products. Apun LLC specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Apun LLC patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.