ABATRON®

ABOCRETE™

Epoxy Patching and Resurfacing Compound

Structurally and Chemically Superior to Concrete

Bonds permanently to concrete, metal, wood and most surfaces

For industrial, marine, institutional and residential uses

ABOCRETE™

SUGGESTED USES

Unlike concrete, latex modified concrete and other mixes, ABOCRETE permanently repairs, bonds, rebuilds, and resurfaces concrete and most rigid surfaces. GREENGUARD Certified for Indoor Air Quality.

Floors	Dams	Stairs
Walls	Decks	Sculptures
Runways	Columns	Sidewalks
Loading Docks	Driveways	Garages

- Up to 20 times the tensile strength of concrete, 20 times the flexural, 4 times the compressive strength.
- Contains no solvents or volatiles. Non-toxic: safe to use.
- Unaffected by salt-water, oils, and other chemicals that corrode concrete.
- Ideal for heavy-traffic floors, stairs, loading and parking areas, warehouses, plants, ship decks, pitted, worn or cracked concrete.
- Holds better than bolts to install equipment, machinery, precasts, posts, columns, structural and decorative components.
- Used in any thickness, from a few mils to more than a foot thick.
- Useable without sand for priming and coating.
- Extend up to 5 times with graded sand and gravel or stones.
- Virtually shrink-free.
- Hardens quickly.
- Makes a great slip-resistant floor when used with a broadcast aggregate.

TYPICAL COMPARATIVE REFERENCE DATE

	Concrete	ABOCRETE
Tensile strength. psi	300	5,800
Flexural strength, psi	500	10,000
Compressive strength, psi	3,500	14,600

COVERAGE

One gallon of ABOCRETE, neat or filled, yields 231 cubic inches, the maximum coverage any material can offer. For example, 1 gallon covers 160 square feet, 1/100 inch thick. One ABOCRETE kit (1 gal. resin and 1 qt. hardener) when mixed with the sand supplied with the kit, has the following coverage:

ABOCRETE: Sand 1:2 parts by volume—
25 sq. ft. X 1/8 inch
ABOCRETE: Sand 1:5 parts by volume—
45 sq. ft. X 1/8 inch

Note: If all the sand in the 5 gallon ABOCRETE kit is mixed with the resin/hardener the volume is approximately 4 gallons.

DIRECTIONS

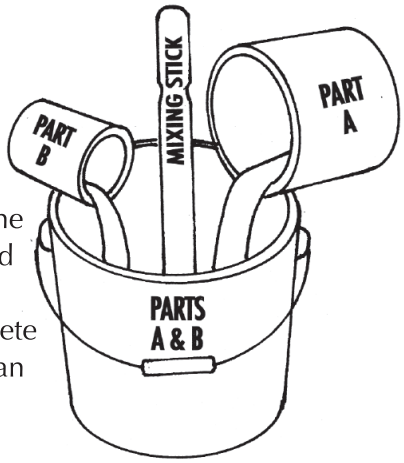
A. SURFACE PREPARATION

SURFACE PREPARATION is the indispensable prerequisite for a good result. Surfaces should be sound, clean, dry and free of loose matter. Oil, grease, wax and old paint should be removed with detergents, degreasers or strippers, and the surface thoroughly rinsed and dried. Mechanical abrasion or blasting is preferred whenever practical. "Laitance" (deceptively sound-looking surface of new concrete) must be removed by abrasion, blasting or acid etching. This should be followed by rinsing with water, neutralizing with soda-ash solution, if available, and again rinsing thoroughly. Thin cracks should be deepened and widened enough to facilitate filling with ABOCRETE.

B. MIXING

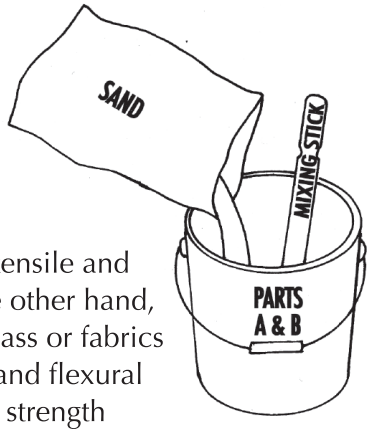
Remove the contents from the pail. Thoroughly mix 4 parts by volume ABOCRETE Part A with 1 part ABOCRETE Part B in a round container that is deeper than it is wide. If too much is mixed at one time, the mix may harden too quickly, especially in warm

weather. To estimate hardening time, mix a small test batch first. (See "Hardening and Curing.") After 2-3 minutes mixing, add the desired amount of sand while stirring and mix completely. Dry concrete powder or pigments can be added to color the blend while stirring.



The SAND packaged in the kit is the grade most often used, but finer or coarser sand, as well as grit, chips, pebbles or gravel can be added to fit particular requirements. The finer the sand, the more it thickens the blend. Addition of sand and aggregates is most desirable, especially in thicker sections, in order to reduce the coefficient of thermal expansion differences between resin and substratum. Thicker layers of unfilled resin may separate or crack because of its higher contraction/expansion in cold and warm weather.

The sand or aggregate to be blended must be clean and dry. If too much filler is used, the blend becomes too dry and it will bond poorly. When adding sand, check to make sure the mixture is not too dry.



Excess of sand can proportionately reduce tensile and flexural strength. On the other hand, fibrous fillers like fiberglass or fabrics tend to improve tensile and flexural properties. Compressive strength is much less affected. Rocks (preferably graded with gravel and sand) can be used as fillers in larger cavities and cracks. For structural projects, combinations with sand, rods, rebars, beams, wires or fiberglass can be used to obtain strength to match or surpass that of steel.

If properly stored in their original containers, A and B will remain useable almost indefinitely.

When the resin/hardener blend, neat or with filler, is to be applied in thin layers, an induction period of 5-10 minutes should be observed: the blend must rest for that period in the mixing container before using it. This allows the resin/hardener reaction to progress to the point that the ambient moisture or CO_2 cannot affect it and cause incomplete "oily" hardening. When the atmosphere is dry, when heat is used for curing, or where the ABOCRETE blend is applied thickly, the induction period is not necessary.

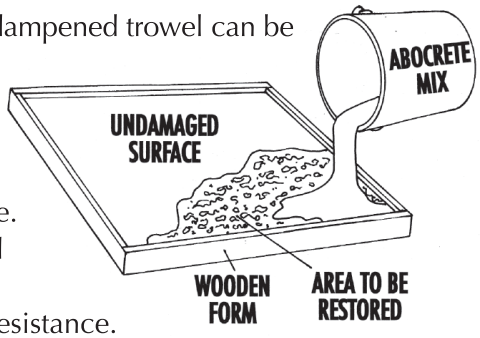
Before

After

C. APPLICATION

THE A/B BLEND filled with sand, gravel or aggregate can be spread, troweled or poured. It can also be cast into forms like concrete, with the use of a release agent. The mixture (1 volume A/B blend with 2 or more volumes sand or aggregate) is superior to the unfilled A/B blend for patching, filling, and resurfacing, as the fillers correct the coefficient of thermal expansion.

Note: A water dampened trowel can be used to smooth the surface. Water should not be blended into the mixture. Sprinkling sand on the surface improves slip-resistance.



THE A/B BLEND WITHOUT SAND can be poured, rolled or brushed. A primer is generally recommended. The blend will harden into a film or mass as hard as concrete, and as smooth as glass. Coats over 20 mils are recommended. Broadcasting sand, grit, or vinyl chips over the wet Abocrete is recommended for a tack-free surface.

For a SLIP-RESISTANT FLOOR, coat the surface with the A/B blend, then broadcast sand on it to cover the resin completely. A few hours later, when the resin has hardened, sweep off the excess sand. The resulting surface is uniform in color and more durable than concrete. This method is used to cover the entire surface where patches have been made with the filled ABOCRETE blend.

The unfilled A/B blend of ABOCRETE can also be thinned with ABOSOLV and used as a primer.

D. HARDENING AND CURING.

In general, the larger the mass, the faster the hardening, and the thinner the layer, the slower the hardening. Also, the higher the temperature, the faster the hardening. At 68°F (20°C) 1 pint of unfilled ABOCRETE A/B blend hardens in about 45-70 minutes, and 1 quart hardens in 30-60 minutes. When sand is added the hardening time increases as the percentage of sand increases because the sand absorbs the heat of the reaction. A thin, brushed layer of ABOCRETE needs 2 or more hours to harden.

Normal temperatures of application are between 55°F (13°C) AND 85°F (29°C). Too low temperatures may hinder hardening.

"Curing" is called the completed reaction, or the progression toward the point at which the optimum properties (rigidity, physical strength, chemical and heat resistance) have been reached. After hardening, the curing reaction continues for days and weeks, by itself, at room temperature, or it can be accelerated to a few hours with heating. For instance, 2-3 hours at 212°F (100°C) may have the same effect of 2-3 weeks at room temperature.

RELATED PRODUCTS

ABOWELD™ 55-1: Non-sagging epoxy patching and repair compound for vertical, overhead and damp surfaces.

BestBond® Crack Repair: Epoxy crack-repair compound in convenience 10 fl. oz. cartridge.

BestBond® Joint Sealant: Flexible joint sealant in convenient 10 fl. oz cartridge.

BestBond® Anchor: Epoxy anchoring compound in 10 fl. oz. cartridge.

Primkote™: Epoxy primer for applying ABOCRETE in thin coats or on surfaces which are too porous or difficult to wet.

Manufactured by:

ABATRON

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