

Technical / Procedural Bulletin

No. 17 2014

Gill 17 Gill Lock

Type: Gill 17 is a two component, 100% solid, medium viscosity, high modulus, and moisture insensitive epoxy system. This product meets ASTM C-881.

Intended Use: Gill Lock is a two-component epoxy for bonding fresh concrete to existing concrete when the substrate cannot be properly prepared to a non-contaminated condition, free of sugar solution or other condition that would prevent a cementitious bonding to the substrate. The surface must be free of dust, oil, grease, curing compounds, or other contaminants. It also can be used as a construction aid when resurfacing vertical, overhead, and horizontal concrete under elevated temperatures that may cause a cement bond, i.e. Gill 33® method, to dry rapidly.

Government Agency Acceptance: Federal and State.

Limitations: Application at ambient temperature below 40°F is not recommended. Exposure to temperatures exceeding 150°F for prolonged periods is also not recommended.

Drying / Curing: Approximately two to three hours depending upon temperature, wind, and humidity.

Coverage: One gallon of Gill 17 Gill Lock provides coverage of approximately 150 square feet 10 mils thick.

Shelf Life: A minimum of one year in original, unopened container.

Storage: Store in dry area, between 40°F - 95°F. Do not freeze or allow exposure to direct sun.

Shipping Weight: 13 lbs. per gallon, including container. One kit is equivalent to two gallons.

Volatile Organic Compounds: None.

Safety Precautions: Keep container closed when not in use. Keep out of reach of children. Not for internal consumption. For professional use only by a qualified technician. Consult the Manufacturer's Safety Data Sheet for further health and safety information.

Equipment: Clean, empty plastic open top 5-gallon container. Plastic or wooden paint paddle, rubber gloves, NIOSH approved respirator, long sleeve shirt, protective eyewear, and drill with mixing paddle attached.

Warranty: Gill Industries warrants Gill Lock to be free of manufacturing defects and to meet published technical data if applied in accordance with Gill standards. Gill Industries cannot be responsible for the condition of the existing concrete or surface in which the Gill Lock is applied, nor can Gill Industries be responsible for installation. All claims concerning product defects must be made within 12 months of shipment. Absence of such claims in writing during this period will constitute a waiver of all claims with respect to such product. In any event, Gill shall only be responsible for replacement of Gill Lock due to product failure. This warranty is in lieu of any and all other warranties, expressed or implied.

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Please contact a Gill representative for your specific applications.

Gill 33® is a registered trademark of Gill Industries, Inc., Lancaster, SC.

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Test Data: Tests certified by Gill Industries, Inc.

	Properties	ASTM Method
Mix Ratio	1:1 by volume (A:B)	N/A
Viscosity	4,000 cps	Brookfield
Pot Life @ 77°F	30 minutes	N/A
Hardness (Shore) @ 77°F	84-D	D-2240
Gel Time (5 mil) @ 77°F	3-4 hours	N/A
Tensile Strength	8,000 PSI	D-638
Tensile Elongation	8% - 10%	D-638
Compressive Strength	1,200 PSI	D-695
Flexural Strength	13,000 PSI	D-790
Bond Strength	600 PSI @ 24 hours 6,000 PSI @ 28 days	C-321 C-882
Water Absorption	0.2% @ 24 hours	N/A

Technical Data: Tests certified by Gill Industries, Inc.

	Part A	Part B
Solids	100%	100%
Color	Clear	Gray
Weight / Gallon	9.50 Pounds	13.00 Pounds
Shelf Life	1 Year	1 Year

Installation:

SURFACE PREPARATION: Surface should be clean and sound. It must be free of dust, oil, grease, and curing compounds. It may be dry, damp or wet, but must be free of standing water. The best results are obtained on dry concrete. Gill 17 will not bond to surfaces that have been sealed with a permanent type of form oil, curing compound, or release agent. These must be removed before application. Temperature should be above 40°F. Surface defects should be opened by the use of masonry saw to provide a .25" x .25" groove. Clean the crack and adjacent area of any loose material. All exposed steel surfaces should be blasted or other method of mechanical cleaning to remove rust. Gill 17 should be thoroughly applied before rust can reform.

MIXING PROCEDURE: Stir each component separately. Mix one (1) part A with one (1) part B by volume into a clean mixing container. Mix the epoxy with a slow speed drill that has a mixing paddle attachment. Carefully scrape the sides and bottom of the pail during mixing. Blend for 3 minutes. Mix only the amount of material that can be used within the pot life.¹ Mixed epoxy will cure much faster in warm weather than in cold. At temperatures near 40°F, prewarming of both A & B parts may be needed prior to use. Prewarming is best done by leaving indoors at 70°F. Do not heat using flame.

APPLICATION: Gill 17 may be applied by short-nap roller or brush. Fresh concrete should be placed within two to three hours after applying the Gill Lock.

¹ Caution: Large batches of epoxy will cure much faster than small batches.