Concrete Primer

Hillyard Concrete Primer promotes adhesion by bonding and fusing the top coat seal to the surface and is to be used as a system with Hillyard LT, MT, HT, and HTG seals. As part of the Hillyard Concrete Defense® system, Concrete Primer is a safer floor prep alternative and eliminates typical steps like acid-etching, grinding and shot-blasting, making it easier to get professional results with in-house floor finish expertise. The innovative proprietary acrylic formulation maintains a slight tack to adhere to both the surface and top coat seal. Concrete Primer cures with the top coat to provide a durable, bonded protective coating system.

Features & Benefits

- Proprietary acrylic formulation promotes adhesion.
- Safer alternative to acid-etching.
- Eliminates the need for labor-intensive grinding or shot blasting.

Directions

See Attached

Safety

See material safety data sheet and product label for safety information, handling and proper use.

HMIS	Concentrate
Health	1
Flammability	0
Reactivity	0

Technical Specifications

Color	White
Scent	Non-Objectionable
Appearance	Milky Emulsion
pH (concentrate)	8.00 - 9.00
Non-Volatile Matter	20.00 - 22.00%
Dilution Rate	RTU

Availability

Item	Pack
HIL0050106	4 - 1 Gallon Containers
HIL0050107	1 - 5 Gallon Pail

Coverage Rate

Approx. coverage:
Bare/Open Concrete: 500 - 700 sq. ft./gallon
Previously Coated Concrete: 1,000 to 1,500 sq. ft./gallon.

HILLYARD®
P.O. Box 909
St. Joseph, MO 64502
1-800-365-1555
www.hillyard.com

Hillyard Concrete Defense System Instructions

Read Full Instructions Before Starting

1. Evaluate

Concrete must be indoors, at least **90** days old, in sound condition, with a surface temperature range between 50-90º F. Do not apply to damaged, loose or spalling concrete. Do not apply to damp concrete, (moisture coming from within the surface must be corrected before use).

Perform **Previous Coating Test** to determine if concrete is bare/open or has been previously coated. This will affect pad selection during preparation and further testing and evaluation of the previous coating to see if it is structurally sound to be coated over.

Previously Coated Concrete Floors

Determine if the previous coating is a permanent coating or removable coating by applying a small amount of floor stripper to the surface. If the stripper emulsifies the coating, it is most likely a removable coating and should be stripped with a product like Hillyard Arsenal stripper per label instructions. Repeat as necessary for complete removal. If previous coating is a permanent coating, perform **Adhesion Test** to make sure previous coating adheres to the surface. If the previous coating does not adhere properly, it will need to be removed with the Malish Diamabrush System. Previous coating must be visually sound without any peeling or flaking. If it is not sound, remove the previous coating with the Malish Diamabrush System.

Bare/Open Concrete Floors

If floor is bare/open, perform **Excess Moisture Test** to make sure there is no excess moisture or hydro-static pressure in the concrete slab. If test reveals excess moisture or hydrostatic pressure, STOP, correct the moisture problem before proceeding. Do NOT proceed if problem cannot be corrected. Multiple test patches may be performed on large floors.

If there are any cracks or chips that need to be filled prior to preparation - see step 3.

2. Perform Adhesion Test

Scrub a small section of floor, enough to coat a 2'x2' test patch.
- Use Hillyard SM-1 at 6 oz per gallon.
- Use a floor machine, autoscrubber or a manual scrub brush.
- Bare/Open concrete floor pad selection: scrub with black pad.
- Previously coated floor pad selection: scrub with 3M SPP.
- Rinse thoroughly, let dry.

Apply Concrete Primer to 2' x 2' area and let dry minimum 1 hour.

Apply selected seal to 2' x 2' area and let dry.

Wait 48 hours.

Perform Adhesion Test
- If adhesion test succeeds, continue.
- If adhesion test fails, use the Malish Diamabrush System, repeat testing.

3. Repair (if required)

HIL22013 - Crack and Patch, Bulk, Gray - 2-part epoxy for trowel filling.
HIL22014 - Crack Filler, Cartridge, Clear - Use with standard caulk gun.
HIL30011 - Trowel, CSM4067100 Steel Wire Brush

4. Preparation - Floor Machine or Autoscrubber

Pad Selection
- Bare/Open Floors: black pad.
- Previously Coated Floors: 3M SPP.

Scrub with a solution of Hillyard SM-1, diluted at 6 oz. per gallon of water.
- Floor Machine: mix in mop bucket, apply liberally with mop. Scrub in 10' x 10' sections. Use a wet vac to remove scrubbing solution.
- Autoscrubber: mix in tank, scrub, remove.

Rinse the floor thoroughly. (Repeat if necessary)
- Floor Machine Method: Mop on fresh clean water, remove with wet vac.
- Autoscrubber: apply water, remove.

Let floor dry completely.

5. Apply Hillyard Concrete Primer

Recommended Application Method
- Smooth or previously coated floors: flat mop.
- Rough floors: 3/8" nap roller.

FLOOR Temperature: 50-90º F.

Approx Coverage Rate
- Bare/Open Floors: 500 - 700 sq. ft. per gallon
- Previously Coated Floors: 1,000 to 1,500 sq. ft. per gallon.

Dry Time: At least 1 hour. Must be top coated with HIllyard LT, MT, HT, HTB or HTG within 24 hours.

Do NOT apply a complete second coat. Only re-apply in thin/bare spots.

Test Methods

Previous Coating Test

- Sprinkle a small amount of water on the surface. If the water beads up instead of soaking into the surface, there is an existing coating or seal.

Excess Moisture Test

- Attach a 2' x 2' square of clear plastic sheeting to the floor by sealing all 4 sides with duct tape. Wait 24 hours. If moisture beads on the plastic or the floor is discolored from being damp, the floor contains excess moisture.

Adhesion Test

- Using a razor blade angled 45 degrees to the floor, scribe an "X" pattern all the way through the coating to the concrete. Apply duct tape to the area and firmly press into place with your finger. After allowing the tape to sit for 60 seconds, quickly pull off the tape. If most of the seal is pulled off, adhesion may not be sufficient for coating.

Supplies & Equipment

- Hillyard SM-1 Degreaser
- Hillyard Arsenal Stripper - If Previously Coated With Removable Coating
- Hillyard Concrete Primer
- Hillyard LT, MT, HT, HTB Or HTG Concrete Seal
- Coating Test Kit (Available For HT, HTB & HTG)
- 175 Rpm Floor Machine Or Autoscrubber
- 3M Spp Floor Pads - Previously Coated Concrete Floors
- Black Floor Pads - Open/Bare Concrete Floors
- Mop And Bucket For Degreaser If Using Floor Machine
- Wet Vac Or Autoscrubber For Removal Of Cleaning Solution
- Razor Knife
- Duct Tape
- 2' X 2' Piece Of Plastic Sheeting (Bare/Open Floor Moisture Test)
- Drill With Paddle Mixer - HT, HTB & HTG Only
- Applicators; Flat Mop, 3/8" Nap Roller
- Crack And Patch Filler (If Required)
- Decorative Flakes, Texture Agent (If Required)
- Spike Slippers, For Use With Applying Decorative Flakes
- Access To Clean Water

6. Apply Selected Hillyard Concrete Seal

	LT 499	MT 492	HT 493	HTG/HTB 500/502
For indoor use only. For outdoors use Hillyard Repel® sub-surface penetrating sealer.	■	■	■	■
Floor must be coated with Hillyard concrete primer before seal coat. Primer coat must be dry with a slight tack to it before top coating with seal. Primer coat must not sit open without a top coat longer than 24 hours.	■	■	■	■
Recommended floor surface temperature range for coating:	50-90F	50-90F	50-90F	50-90F
Do not apply if relative humidity is higher than:	N/A	N/A	85%	85%
Do not apply unless concrete is **90** days old:	Yes	Yes	Yes	Yes
Single component system - no mixing required:	Yes	Yes	N/A	N/A
Two component system: - Combine part A & part B, drill mix for 5 minutes. - Let mixed product sit for 5 minutes.	N/A	N/A	Yes	Yes
Recommended applicator:	Flat Mop	3/8" Nap Roller**	3/8" Nap Roller	3/8" Nap Roller
Approximate coverage rate (square feet) per gallon:	1,000-1,500	500 - 1,000	500-600	300-400
Approximate dry time per coat	1 Hour	4 Hours*	12 Hours	12 Hours
Hours after dry to re-open floor to light foot traffic:	4 Hours	4 Hours	12 Hours	12 Hours
Hours after dry to re-open floor to traffic indicated on the label:	20 Hours	20 Hours	72 Hours	72 Hours
Abrade the surface between coats with a 3M SPP pad if longer than 24 hours after applying previous coat.	N/A	N/A	Yes	Yes
Recommended coats	3-4	2-3	1-2	1-2

* Must wait 4 hours. Even if the coating looks dry, do not coat. Heavy white streaking can occur.
** Use 3/8" nap roller on rough concrete. For smooth concrete, a lightweight T-bar can be used.

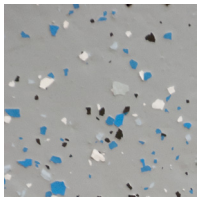
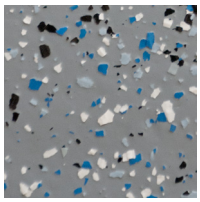
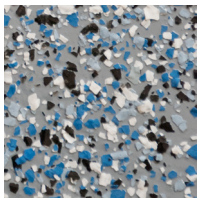
Decorative Flake Option

For best results, after flaking AND coating is dry, top coat with HT Seal.

Broadcast on top of coating, during application, when coating is WET.

2-Person Application Method with Spike Slippers (best results) - As one person is coating, a second person wearing spike slippers can broadcast flakes by throwing the flakes in an upward motion and allowing them to fall and settle to the floor. Cover enough area so broadcasted flakes stay in the wet coating. Try to to keep flakes from falling onto the uncoated surface by leaving about a one foot "flake-free" buffer in the coating edge next to an uncoated surface. As more area is coated, the "flake-free" buffer is coated.

1-Person Application Method - Apply coating in 4' x 4' sections. Broadcast the flakes by throwing in an upward motion and allowing them to fall and settle on the floor.

Light	Heavy	Extra Heavy
		
Approx. 1 LB/250 Sq. Ft	Approx. 1 LB/125 Sq. Ft	Approx. 1 LB/50 Sq. Ft

HIL22012 - Gray Mix Decorative Flakes
HIL22011 - Blue Mix Decorative Flakes (pictured)
HIL22015 - Tan Mix Decorative Flakes

Add-Texture Option - HT & HTB, HTG Only

Hillyard Slip Resistant Concrete Sealer Additive, HIL22000 is a unique texture additive that, when added to the FINAL topcoat of Hillyard Concrete Defense Seals HT, or HTG, can reduce the potential for slipping. This product will not change the color of the floor coating. Use on stairs, indoor decks, or walkways, damp or inclined areas that tend to get slippery.

- Mix 3.6 ounces (about a cap full) of additive per gallon of seal.
- Mix 18 ounces (entire container) of additive per 5 gallons of seal.

Additive to HT, HTB or HTG: Mix parts A and B of HT, HTB or HTG. After mixing, pour proper amount of additive into seal. Use a drill mixer to thoroughly incorporate additive into seal.

HIL22000

Paint Options - Rustoleum Brand Recommended*

Option 1 - Paint BEFORE Final Coat Is Applied (Sandwiched Between Coats)	Option 2 - Paint AFTER Final Coat Is Applied (Top Coat)
1. The coating that the paint will be applied to needs to dry for 24 hours.	1. The coating that the paint will be applied to needs to dry for 24 hours.
2. Recommended Paint: Rustoleum 2548 Traffic Striping Paint, LATEX	2. Recommended Paint: Rustoleum 7543 High Perf. Protective Enamel, OIL-BASE
3. Paint. Let paint dry 8 HOURS before top coating.	3. Paint. Let paint dry 24 HOURS before traffic.
4. Top coat with selected Hillyard concrete seal.	

* Follow Rustoleum Instructions For Paint Application