



Perfect Primer/Membrane® Complete application Guide

Overview: PerfectPrimer® is a complete surface prep treatment to seal and bond almost any top coat to various substrates without needless grinding. It bonds directly to well adhered coatings and mastics to easily and safely prepare the surfaces for new coatings. It reduces surface prep time by eliminating the need for most grinding, acid washing, soy gels, dust containment and shot blasting prep methods. Since 1999, it has been used over millions of Sq. ft. PerfectPrimer® has become the new industry standard for safe, surface prep. PerfectPrimer meets all current EPA, NIOSH, and OSHA regulations.

What is PerfectPrimer® used for? To prepare most regular and difficult surfaces to bond with most decorative overlay concretes, epoxies and resin coatings. It is the perfect Stain and odor blocking primer. It safely seals lead paints, tar and asbestos mastics. Apply Primer directly to any cleaned, sound, surface including asbestos adhesives, black glues, metal, concrete, plywood, carpet glue, tile mastic, linoleum, painted surfaces, asphalt, and other materials. It safely seals the surface without disturbing it, and prepares it to bond with top coatings, adhesives, cements etc. It binds the substrate and overlay together so that they move and bend as one. It balances the substrate pH of the slab to neutral, thereby minimizing the main culprit of coatings delaminating. Primer encapsulates lead and asbestos dust that is present in mastic, tiles, concrete or paints.

PerfectPrimer Family of Products include:

PerfectMembrane® PerfectPrimer reinforced in the field with our Polytex fabric. Used for substrate reinforcement, deck and wall waterproofing, lead and asbestos encapsulation, crack isolation and flashing systems. Specified for the concrete overlay and coatings industries. This seamless, flexible membrane waterproofs and reinforces weak or severely cracked substrates, to reduce substrate cracks that telegraph through to coatings on the deck surface. Use to waterproof any coating resurfacing system on projects indoors or out. It is the easiest way to prep and reinforce a concrete or plywood floor indoors and out, to receive a concrete pour, epoxy or overlay coating. It eliminates the need for tar paper, wire mesh or epoxy flood coats.

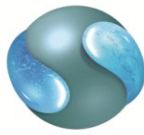
Perfect Spackle (aka. PhillyPutty®) an elastomeric, waterproof spackling paste made on-site as needed. Use to repair cracks with no "V" routing. It seals and waterproofs the crack without inducing the stress back into the slab that otherwise would cause the slab to crack again, as is typical with epoxy fill methods (*Use "Putty" for stress and shrinkage cracks only. Not for structural repairs, or crack repairs to stop water intrusion.*)

TrueGrit® is our cellulose texture additive. You can add it Perfect Primer to:

- 1: Create Philly Putty, our waterproof, flexible spackle paste.
- 2: Make RubberDecky
- 3: Increase surface texture to help your cement coats grip the substrate.
- 4: Thicken PerfectPrimer to help hide existing substrate imperfections.

PerfectFlashing and PerfectCrack repair® Use PerfectPrimer and Polytex fabric to make perfect, flexible waterproof flashings and crack repairs for almost any surface.

RubberDecky® PerfectPrimer plus True Grit, and TopSealer combine to make our flexible, easy to install, weather barrier, and decorative resurfacing system. (For more information, see our RubberDecky installation guide).



Special Features: Once cured, you can apply your overlay coatings to PerfectPrimer® at any time after it is cured providing the surface is clean. PerfectPrimer seals the concrete and eliminates the need to water mist before applying coatings. PerfectMembrane® meets National standards for encapsulating asbestos adhesives. Primer is categorized as Tint Base 1. It can be tinted to pastel and medium colors with universal water based latex and paint colorants.

Surface prep to apply PerfectPrimer:

Cleaning the substrate: Mop, wire brush or water pressure-wash the surface to remove dirt, grease, wax and loose particles. Typical cleaners include Dishwashing hand soap, "Simple Green" or TSP. Allow porous substrates to dry for 24 hours before applying Primer.*

Epoxy, Tile, Urethane, or Polyspartic decks should be cleaned, lightly sanded, then wiped down with MEK, Acetone or De-Natured alcohol prior to applying PerfectPrimer". EPDM materials less than five years old should be primed with EPDM primer or cleaned with an EPDM wash. You can also wipe down the EPDM with unleaded gasoline or lacquer thinner. Exposed rusted steel must first be treated with our IronBack® rust converter.

PVC must be first be cleaned (do NOT sand) then wiped with Isopropyl alcohol. PerfectPrimer may exhibit weaker bonds with vinyl polymer coatings such as Flex-Crete. Primer has been shown in some cases to be incompatible with Some Metallic epoxy coatings. Always test primer with your coatings before applying them in the field.

When applying over epoxy, acrylic sealers or other resinous floors: Remove lifted or poorly adhered material. Lightly sand substrate surface using a #100 Grit screen. Wipe down surface with acetone, or denatured alcohol then apply two coats of PerfectPrimer.

Over hard mastics, wash with warm water and a de-greasing solution or dishwashing soap using a deck brush. Once visibly dry, apply two thin coats of Primer. For smooth tile and linoleum: Clean with soapy water, and wax strippers if needed.

Remember that if you choose to acid wash a concrete deck, you must then neutralize the surface with baking soda as a final rinse after washing.

Substrate compatibility Test:

If you would like to test your substrate for compatibility with PerfectPrimer: Clean an area of about 6"x 6" with some soap and water. Towel the area dry and brush apply PerfectPrimer® to the test area. If the material adheres to the surface as you are applying it without "traveling" or shrinking, you can use PerfectPrimer® for this substrate. Once cured, it should only be able to be removed by scraping it.

Note: Once cured, it is possible and normal that Primer can be scratched off a substrate. This is NOT a problem as long as it does not "peel" off in sheets

Note: where there is concerns of moisture vapor, outgassing, negative hydrostatic pressure etc, first apply our SlabTight coatings onto the clean, poutous cement. wait for it to dry for one hour, then apply PerfectPrimer

If the surface to be treated is rusted, apply our IronBack rust converter to all rusted. This will stabilize and encapsulate the metal prior to applying PerfectPrimer or any other coating.



To prepare a substrate: Patching Overview:

Fill all cracks and gaps wider than a dime. Use construction grout or similar material to raise and level all low spots where puddles are deep enough to cover a quarter. Apply PerfectPrimer to repaired areas with or without our Polytex fabric as desired. ***We recommend using our PerfectCrack Repair Kit.***

Crack repair: To repair seams and cracks, blow, scrape or wash out any loose dirt materials from cracks. No “V” routing is needed. Fill the cracks using our PerfectPrimer Spackle® as per directions. .

To make PerfectSpackle: Blend our TrueGrit aggregate into PerfectPrimer® until it thickens into a paste that “hangs” on a trowel without being too stiff. For cracks smaller than ¼”: Spread PerfectSpackle into the crack with a spackle blade or finger. Cracks ¼” and wider should be blown clean, filled with PhillyPutty, then flashed with Polytex fabric. **NOTE:** Do not fill deep cracks only with putty, as it can trap moisture. Deep cracks should be mostly filled with sand, TrueGrit, or “soft” cement, then topped off with 38” of PerfectSpackle. You can then choose to overlay that with our Perfect Crack repair system . (*PerfectPrimer plus PolyTex fabric*)

Waterproof flashings Apply our PerfectFlashings /crack repair system to all, cracks, wall transitions, seams, and penetrations etc. You can see this at our PerfectMembrane and PerfectCrack repair video.

To apply flashings for seams, joints or cracks: Apply one coat of Primer to the area. Make sure to work in areas no more than 3’-4’ long or wide at a time. Unroll fabric into the wet coatings and brush fabric flat. Immediately apply one additional coat of primer onto the fabric.

Be sure not to seal up existing openings designed to let water “out”. Check to make sure that existing flashings are not leading water underneath the deck surface.

How much TrueGrit do I add to Primer? To thicken up the primer, make RubberDecky, or add some texture; Add 1-2, 16 oz cups of “TrueGrit” for every gallon of Primer you want to desired texture.

NOTE: *Remember that the thicker you make the coating, the harder it may be to apply. This may also result in reduced coverage per gallon. You may stir in a few ounces of water to make it easier to spread.*

Notes: PerfectPrimer® will NOT adhere to Silicone, silicone sealed surfaces or TPO.

Work Clean! Wear socks or booties. Avoid tracking dirt onto the primed surface. Dirt and dust are bond-breakers.

PerfectPrimer is NOT recommended for SURFACES subjected to constant moisture, excessive hydrostatic pressure, below grade, or continuous water saturation.

PerfectPrimer can be tinted darker using water based, acrylic paint tints.



Applying and curing of PerfectPrimer:

Apply the first coat using a **brush or 3/8' roller** evenly to about 2-3 DFT's. This can be accomplished by rolling it on as thickly as you can, then back-roll so it does not puddle. After 4-8 hours apply the second coat. Allow to cure for 12-24 hours before applying a top coating such as epoxy, paint, decorative, or self-leveling cements.

NOTE: Apply cement products directly to cured PerfectPrimer. No additional primers are needed.

After the first coat has dried, you can use fill uneven spots, etc. as follows: Use a patching cement on the primer and smooth the edges with a steel trowel or damp sponge. Once the cement is dry, apply your second coat of PerfectPrimer. If you are not doing any cement patching, simply apply your second coat of primer once the first coat is dry. These cure times assume an RH of 70% or lower. When humidity is higher, wait 24 hours to apply cements and 48 hours to apply epoxies. Note: Do not apply PerfectPrimer below 49 degrees, F. or when freezing weather is expected within 12 hours of application completion.

Notes: You can add up to 12 oz of water into one gallon of PerfectPrimer to keep it from drying out on hot days, to replace the water that may be evaporating from sunlight and exposure to air. In conditions of high humidity or installing over non-porous surfaces like epoxy and tile you can apply your topcoat after a 24 hour cure by following these special guidelines: Apply one thin coat of primer, wait 90 minutes, then apply a second thin coat. This will allow for faster, even curing and out-gassing.

Notes: Make certain to prime the entire substrate being re-surfaced. You should only "Spot apply" Primer in cases or patch or repair work.

PerfectPrimer typical coverages:

PerfectPrimer for two coats: 175-200 sq. ft per gallon depending of porosity of substrate.

PerfectMembrane®: 40 square feet per gallon.

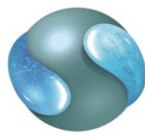
Applying PerfectMembrane: Prepare the surface as per the instructions in this guide, then:

Spray, brush roll apply (use 3/8" roller) a foundation coat of Primer onto an area a little wider than the fabric and approximately 3'-4' long. Apply fabric into this wet area. Working from the center out to the edges, use hands, brush or roller to smooth it out, forcing the base coat to come up through the material. Leave no wrinkles or air pockets. Apply a second coat on top of the fabric, and roll flat until no white fabric is visible. Adjacent fabric overlaps should be approx. 2-3". For spray applications, use a # 30 tip at 3,000 psi. Apply 1¼ gallons per coat.

NOTE: *PerfectMembrane® will reduce transfer cracking up to 90% or more over existing cracks; however, results may be affected by the flexibility ratings of your topcoat. If overlay does crack, then re-apply the Polytex crack repair fabric over these areas.*

HINT: When applying fabric to curved or odd shaped substrates, you can either cut the edges of the fabric at alternating 45 degree angles like a pie crust, and then apply it using overlaps, or make a cut in the wet fabric where it is bubbled up, then lay the fabric back down in an overlap

Build a stand-alone waterproofing PerfectMembrane system: To create a stand-alone or complete waterproofing or roofing system, apply an additional coat of PerfectPrimer® over the cured PerfectMembrane. Coverage rates for this system is 3 gallons per 100 sq. ft.



Perfect Primer/PerfectMembrane Troubleshooting Guide/Faq's

Question: What causes the primer or membrane to “bubble up”?

This condition is caused by the same pressures that cause a balloon to expand when you fill it with air or water. The balloon inflates or “bubbles”. The bubbling you see is caused either by the vapor issue site conditions, application of deck coatings over an incompletely cured primer coat (trapped moisture) or by water that is entering the bottom of the membrane from the underside.

Bubbling or “mountains” by cracks are also caused by site or slab moisture causing pressures from underneath. Over fifteen years of testing and field experience has shown us that these bubbles rarely occur, but when they do, it is always for the reasons outlined above. Water never goes through the membrane and causes bubbling. This can occur if the bubble is located at a depression in the deck (ponding water). However, these areas should be patched and leveled before applying the membrane.

If not, they should be patched on top of the membrane, and the membrane re-applied in those areas.

Prevention: First, check to insure that the membrane or primer is properly installed over a clean sound substrate. Inspect to make certain there are no open seams or lifted edge terminations, and that the coating has been applied to the point where there is no visible, dry fabric exposed. If this all checks out, then bubbles or pinholes blowing up the membrane from beneath are exactly what they appear to be. These bubbles are evidence of an out-gassing issue or water intruding and getting under the coatings. In a slab on-grade, the result from a strong negative side vapor drive.

Of course, whenever hydrostatic moisture is suspect on a bare concrete slab, you should perform a Calcium Chloride test (or similar), and/or install a penetrating vapor Barrier coating such as our SlabTight Shield[®] Vapor blocking primer to the substrate prior to installing your coatings.

Vapor Testing:

For applications of any resinous coatings onto a slab on grade, remember that best practices industry standard is to do slab moisture or out-gassing calcium chloride or a certified moisture reader test.

PerfectPrimer[®] is *NOT* a vapor block coating.* It is designed to “breathe” and allow moisture to vent though. If you washed the floor and applied the primer within 12-24 hours after that, then both the concrete floor and the primer contain moisture that must cure out before trapping it under a non-breathing coating. This means that even if the primer seems dry to the touch, there may still be trapped moisture underneath that you do not see.

***If you require a vapor or gas block coating, use our SlabTight[®] vapor block coating before applying PerfectPrimer or your coatings. PerfectPrimer is *NOT* a negative hydrostatic vapor barrier product.**

Do I need to “water prime” a surface treated with PerfectPrimer, before applying my Overlay system?

No. PerfectPrimer will seal and prime the surface, eliminating the need for this step.



Question: What causes PerfectMembrane gets mushy after it rains? How do we fix it?

This will take some detective work so you can find, and repair this. A “mushy”, leaking or bubbling membrane typically means that water is getting under it a penetration, (railings, or skylights etc.) or transition point (where the membrane ends at a wall or door etc.) . It's also possible that water is entering the building from a point not covered by the membrane such as an adjacent wall, roof or flashings that come onto the deck and feed water under the membrane.

Once the membrane dries, it is waterproof. Water does not go through the cured membrane. To test this yourself, run a hose on it and see if you can replicate the leak to the room below.

Related question: How do I Repair “Bubbles”?

If the bubble was due to incorrect application, just cut it out and apply a small fabric and primer patch to the area. If the bubble is due to a slab out-gassing vapor or crack issue, then apply SlabTight® moisture barrier primer into the crack or onto the slab. Fill the crack almost to the top two part epoxy. This will act as a “cap” or dam within the crack. Apply PhillyPutty on top of that, and then install the PerfectPrimer® Crack repair mesh as per typical

Membrane Inspection: To test, cut a slice in one of the bubbles and visually inspect the deck. Feel the membrane material and with the **Back** of your finger to see if it is moist. If moisture is present, look at the deck to see if bubbling is appearing at a low point on the deck. Typically you will find water collects at the underside of the membrane somewhere near the flashings. Water also intrudes at areas like door sills, window jambs, etc, and then runs to a low point by gravity, where it then collects, forming a bubble.

At all areas necessary, repair the water intrusion points first with PerfectPrimer®_flashing system, (same method as our crack repair and deck fabric installation) then repair the bubbles as needed.

Question: There is oil staining or “bleed through” visible on the PerfectPrimer. Is this a concern?

No. Remember, that the PerfectPrimer at one coat is only 2-3dft's. At that thickness if stained it will work, but can only hide so much. Being white, dirt and stains show easily. We make it white so that it can be tinted to your choice of sub floor color. To remedy you should tint the primer typically beige or gray. That way, staining or bleed though is minimized or eliminated.

For commercial or heavy duty, applications, or where the substrate is weak or severely cracked etc, we specify **PerfectMembrane**. Our PerfectMembrane is made for this sort of thing and cures out at approximately 18 Mills. This is a full asbestos and lead encapsulation system, that also provides substrate reinforcement, complete present and *Future* crack isolation, and a waterproofing slip sheet.



Question: How can I get PerfectPrimer® to adhere to existing silicone caulk?

Here is a neat trick. Wipe down the caulk with rubbing alcohol. Place a thin coating of siliconized acrylic caulking (available at any home center) onto the bead of caulk. Once dry, apply the PerfectPrimer®. Your overlay or epoxy etc. will now adhere to the primer adhered to the existing silicone joint.

Question: How can I know when a surface is dry enough to apply the primer? Your substrate must be visually dry and dry to the touch. To test: Drop a small amount of water on the substrate surface. If water is absorbed and water does not bead up on the surface, then you can apply the primer.

Question: How can I get PerfectPrimer® to adhere to an EPDM Rubber roof membranes?

Wipe the EPDM with unleaded gasoline, lacquer thinner or an EPDM primer. Wash it and apply the primer. Over an asphaltic roof, then you need only clean it first then apply the Primer. If the membrane has a silver coating, just wash it and apply the primer directly.

Question: Will the Primer adhere to new, smooth, or high psi (4-6,000 psi) mix concrete?

In general, even if it has been sealed, the primer will work just fine. After all we adhere to surfaces likes galvanized metal and glass and glazed tile. However: The concrete should be cured a minimum of the standard 28 days. After that, the slab must be cleaned to remove curing agents and minerals that migrate to the as it cures.

Question: What about applying Primer under Epoxies, or other or non-breathing coatings ?

Epoxies, Polyspartics etc. or non-breath-able solvent sealers, trap moisture. As the moisture vapor evaporates, it can cause pinholes, delaminations, pinholes, or bubbles etc. in your top coatings. Whenever possible, wait 48 hours for a complete cure prior to applying your epoxy or other resinous floor coatings.

Question: What about using PerfectPrimer® with Fly Ash concrete?

Many pre-cast, tilt up and even ready mix concretes today include large percentages of Fly Ash. This ash may contain petroleum distillates that make the adherence of any water based coatings impossible. This is a relatively new challenge for our industry and generally applies only to concrete that is less than 5 years old. Test concrete surfaces by examining for deep grey blotches within the concrete. This usually indicates a heavy concentration of Fly-Ash.

Feel the surface of the concrete to see if it feels "oily". If it does, wash the surface with a degreaser. Once dried, test the surface with primer. Apply a test patch of primer. Once it cures it, attempt to peel it off. If it is difficult to remove, then your adhesion should be fine,

Question: How do I insure primer adhesion to a questionable substrate?

Do a sample test area, for adhesion before applying to entire floor. If the primer doesn't adhere to the floor upon application, there may be an invisible sealer or bond breaker present.

Question: What special considerations are there, in regards to applying epoxies, mastics, curing times, and applications at high humidity levels?

PerfectPrimer® is a high solids, thin film coating (2-3 dft's). In conditions of high humidity or installing over non-porous surfaces like epoxy and tile you can apply your topcoat by following these special guidelines: Apply one coat of primer as thin as possible, wait 90 minutes and then apply a second thin coat. This will allow for faster, more even curing and out-gassing.



Note: When applying over concrete or wood surfaces, wait 12 hours for primer to cure when you are applying an acrylic or cementitious, breathable topcoat. The primer and your topcoat will continue to vent moisture (cure) together.

Note: Primer applied to damp surfaces, in high humidity conditions, or that gets wet before fully curing, must dry for to cure before overlaying. PerfectPrimer® is designed for Positive side waterproofing only. In cases of excessive moisture, out-gassing or negative side hydrostatic pressure over clean, bare concrete, apply our SlabTight® vapor mitigation primer first, then apply PerfectPrimer® if needed.

NOTE: An overnight (12 hours) period is sufficient cure time when you will be installing a concrete overlay or any other breathable topcoat.

Note: When hydrostatic pressure is high, apply primer on a slab at grade late in the day to mitigate pin holes caused by out-gassing "blow off" of the primer. Test concrete for moisture content prior to application of the PerfectPrimer. Structural concrete moisture should be <8%. Cellular Lightweight concrete moisture should be <19%. Deck surfaces with greater moisture content should first be sealed with our SlabTight Shield® "Vapor bloc" primer. Then apply PerfectPrimer® *prior* to applying your overlay coating. Make sure that all moisture has cured out of Primer especially in crack areas especially when applying epoxies or other non-breathing overlay

Tip: When working over smooth surfaces i.e. linoleum, or on vertical surfaces etc. We recommend adding some of our

TrueGrit® into the primer before applying it to the substrate. This will add surface tension or "Tooth" to the primed substrate and give the epoxy something to consistently hold on to as it cures.

General Notes, Curing Do's and Don'ts:

Over concrete overlay topcoats: In ideal conditions of approx. 70+ degrees F at low humidity levels in a ventilated or open environment, you can apply a cementitious overlay after a cure time of 4 hours. In less ideal conditions, allow 12 hours for cure. Allow 48 hours for primer to cure before applying an epoxy or non-breathing topcoat.

Application Temperatures:

If you have consistently high humidity levels, (above 70%) we recommend that you wait 12 hours for the Primer to cure before applying your cementitious overlay. You can also use a de-humidifier or place fans over the work area, to facilitate curing.

Note: This is a water-based coating which will freeze and become unusable at temperatures below 32°F. PROTECT PRIMER FROM FREEZING DURING SHIPMENT AND STORAGE.

Do not store material at temperatures below 50°F. Do not apply ambient air and substrate temperatures fall below 45°F or when there is a possibility of temperature dropping below 32°F within a 24-hour period after application.