

Impermitek Primer Options for Liquid Applied System Components

Primers are pretreatment for certain substrates that are used to promote and improve adhesion, seal porous substrates or block bitumen-bleed. All substrates must be prepared as necessary prior to the application of primers. All surfaces must be free from gross irregularities, loose, unsound or foreign material such as dirt, ice, snow, water, grease, oil, release agents, lacquers, or any other condition that would compromise the primer adhesion to the substrate.

Impermitek offers several primers used for a variety of applications. A list of these primers and associated uses are as follows:

Primer	General Description
General Primer (Catalyzed Primer)	Multi-functional primer with asphalt blocking properties used on a variety of substrates as recommended.
2-K Performance Concrete Primer (Part A & B Mix)	Multi-functional primer used on a variety of substrates as recommended.
Porous Surface Primer (Catalyzed Primer)	Multi-functional primer used on a variety of porous substrates as recommended.
Metal Detailing Primer (Air/Moisture Cure)	Single component metal primer used on metal terminations & tie-ins.
Single Ply/Plastic Primer (Air/Moisture Cure)	Single component primer used on TPO, EPDM, and PVC single-ply membranes applications as recommended.

Before Applying Primer

Refer to Impermitek **“TDS Substrate Preparation Guidelines”** for substrate requirements and recommended preparation before starting primer application.

Before beginning consult individual primer product data sheet (PDS) for specific recommendations regarding the resin suitability for use, temperature ranges, weather additives, and catalyzation.

Once substrates have been qualified and properly prepared, apply masking tape at top edge of flashing terminations, along the horizontal leading edge where flashings are over an in-place membrane, and any other locations as needed.

Primer Mixing & Application

Refer to individual Product Data Sheets and Safety Data Sheets (SDS) for storage, handling, precautions, application rates, and cure times. Also, see appendix

for table of relevant primer recommended uses and preparation.

For the 2-K Performance primer, use a mixing stick or slow-speed (200 to 400 rpm) mechanical mixer with spiral agitator taking care not to aerate the resin. Catalyze only the amount of material that can be used within 10-15 minutes.

For catalyzed primers, thoroughly mix the entire drum of primer for 2-3 minutes before each use, and prior to pouring off resin into a second container if batch mixing. Add Impermitek Catalyst to the resin component, stir for 2-4 minutes or until the catalyst has sufficiently dissolved before applying to substrate. Impermitek Catalyst addition is based on the resin volume being used and temperature.

After mixing, immediately apply primer to clean and prepared substrate at the recommended consumption rate and coverage using Impermitek approved roller, v-notch squeegees, or brushes. The resin should be applied evenly onto the surface using care not to spread the primer too thin or pool in low areas.

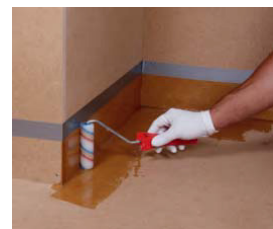
Allow primer to fully cure before applying the next Impermitek component. Changing project conditions should be monitored throughout the day to adjust primer catalyst ratios and cure time.

Typical Primer Installation



Step 1:

Apply masking tape at top edge termination and on substrate when Impermitek membrane flashing will be applied over an in-place membrane.



Step 2:

Apply Impermitek Primer starting on vertical substrates then horizontal.



Step 3:

Remove all masking tape before primer resin cures.

Allow primer to fully cure before applying the next Impermitek component. All primers should

be covered with the next Impermitek component as soon as possible, up to a maximum of 7 days.

Steep Slope Applications

Impermitek and other recommended primers are produced ready for application on all slopes. Impermitek Primers do not require mixing with Impermitek Thixo Additive.

However, for ramps, steep slope roofing or waterproofing and high vertical wall applications, Impermitek primers may be “peppered” while wet with broadcast #1 (0.7 – 1.2mm) kiln-dried quartz to provide some slip resistance and “grab” for application of subsequent Impermitek components. NOTE: With moisture mitigation primer applications, aggregate must be applied in a subsequent sacrificial layer of primer applied over the moisture mitigating primer layer using additional moisture mitigation primer or other acceptable Impermitek primer.

Daily Work Joints & Staging

If unable to prime the full area in one day, the primer application may be continued the following day by applying further product, ensuring an overlap of approximately 2” (50mm) onto the previously primed area.

In some applications, applied primers may be left exposed to the elements and/or trafficked prior to application of subsequent Impermitek components due to weather, scheduling or other interruptions. In all cases, care should be taken by the applicator to protect and keep the primer layer clean. Any damage or contamination (dirt, dust, debris) must be corrected prior to applying subsequent Impermitek components.

Recoat Times & Protection

Recommended minimum cure and maximum recoat times should be followed for all primers. Impermitek typically recommends applying subsequent Impermitek components the same day and up to 48 hours maximum following cure when the primer remains clean and has not been exposed to precipitation.

Primers left exposed for more than 12 hours, or the surface becomes dirty or contaminated from exposure to the elements, should be thoroughly cleaned with Impermitek Cleaner and allowed 20-minutes evaporation time prior to application of the next Impermitek component.

When the primer is left exposed to the elements for longer than the 7-day maximum recommended recoat period, Impermitek recommends wiping down the in-place primer with Impermitek Cleaner and repriming

before application of subsequent Impermitek components.

Where the primer has been contaminated or damaged beyond cleaning or repair, the primer must be completely removed and re-applied.

Epoxy & Moisture Mitigation Primers

Primers should be applied evenly onto the surface using care not to spread primer too thin or allow to pool in low areas. To reduce potential for pinholes and bubbles due to “off-gassing”, apply moisture mitigation primers preferably with falling temperature.

Moisture mitigation primer must be applied free of pinholes with all cracks and joints properly sealed to block moisture transmission. Allow primer to fully cure before applying the next Impermitek component. Changing project conditions should be monitored throughout the day to primer cure time. Primer should be covered with the next Impermitek component as soon as possible, up to a maximum of 24 hours.

When the moisture mitigation primer will be left exposed for more than 24 hours, apply a second coat of moisture mitigation primer broadcast with #1 (0.7 – 1.2mm) kiln-dried quartz while wet at the rate of 30 lb/100 ft² (1.5 kg/m²).

DISCLAIMER

The purpose of this Guide is to provide fundamental information and important design and/or application considerations for Impermitek roofing, waterproofing and surfacing assemblies. Impermitek manufactures and sells roofing, waterproofing, and traffic surfacing materials and does not practice architecture or engineering.

Impermitek is not responsible for the performance or damage to its products caused by such things as improper building design, construction flaws, or defects in workmanship. These guidelines should not be construed as being all-inclusive, nor should they be considered as a substitute for good application practices. This document and/or any other literature produced by or on behalf of Impermitek are offered for the purpose of guidance and must be evaluated and modified as required, by the Designer of Record and/or applicator for each individual project.

The design and use responsibility of Impermitek products remains with the architect, engineer, roofing contractor, or owner. Please consult your design professional for more information. Impermitek responsibility is limited to the terms and conditions of Impermitek warranty which takes effect only when issued in writing by Impermitek to the customer. Specimen warranties are available on request.

Impermitek Primer Appendix

The following tables provide general guidelines regarding acceptable substrates, recommended primer, and basic surface preparation:

Asphalt Based Substrates					
Substrate	Prep Notes	GP	PP	2K	MP
Asphalt or asphalt bleed out at laps/seams	1	✓**		✓	
Roofing Felt (all)	1	✓**		✓	
SBS Modified Bitumen (sanded or granulated)	1,3	✓**		✓	
APP Modified Bitumen (granulated)	1,3	✓**		✓	
APP Modified Bitumen (smooth)	1,4,9	✓**		✓	

Cementitious Based Substrates					
Substrate	Prep Notes	GP	PP	2K	MP
Structural Concrete, Masonry, Brick	1,2	✓**		✓	
Structural Lightweight & Air Entrained Concrete	1,2,9	✓**		✓	
LWIC	0				
Cement Roof Board	1	✓**		✓	

Green Concrete, Split Slab, pH & Moisture Issues					
Substrate	Prep Notes	GP	PP	2K	AC
Structural Concrete, Masonry, Brick	1,2				✓**
Structural Lightweight & Air Entrained Concrete	1,2,9				✓**
LWIC	0				

Metals					
Substrate	Prep Notes	GP	PP	2K	MP
Steel	1,5			✓	✓**
Galvanized Steel	1,5,8			✓	✓**
Stainless Steel	1,5			✓	✓**
Aluminum	1,5			✓	✓**
Copper	1,5			✓	✓**

NOTE: Primer suitability and substrate preparation requirements should be confirmed by the applicator with field adhesion testing at the time of application.

Wood Plank, Timber & Wood Sheathing					
Substrate	Prep Notes	GP	PP	2K	MP
Wood, Plywood, Dimensional Lumber	1	✓**	✓	✓	
Treated Lumber with waterborne Preservatives	1	✓**	✓	✓	
Penta Treated Lumber	0				

Plastics, Single Ply Membranes & Coatings					
Substrate	Prep Notes	SP	DP	2K	PP
PVC	1,6,9,A	✓**		✓	
CPE, CSPE	1,6,9,A	✓**	✓	✓	
EPDM, TPO	1,6,9,A	✓**			
EVA	1,6,9,A	✓**		✓	
PIB	1,6,9,A	✓**		✓	
Rigid PVC & ABS	1,6,9,A	✓**	✓	✓	
PU (polyurethane)	1,6,9,A	✓	✓	✓	
Acrylics	1, 7,A	✓	✓	✓	

Appendix Key

GP	General Primer
2K	2-K Performance Concrete Primer
PP	POROUS PRIMER
MP	METAL PRIMER
SP	Single Ply/Plastic Primer
AC	AC TECH 2170FC or approved equal.
**	Preferred primer for this application.

Substrate Preparation Notes

✓	Primer NOT acceptable.
✓	Acceptable primer.
0	Substrate NOT acceptable.
1	Surface should be clean, dry & dust-free.
2	Shot blast, scarify, cup grind.
3	Primer recommended but not required except for exposed asphalt and asphalt bleed out at laps & seams.
4	Aggregate surfacing required on smooth surface APP. Apply cover board, SBS base ply, granulated cap sheet or soften asphalt surface by application of heat, and immediately blind with quartz aggregate.
5	Heavily abrade metals and hard plastics, thoroughly wipe with Impermitek Cleaner.
6	Lightly abrade and scour surface, thoroughly wipe with Impermitek Cleaner.
7	Thoroughly wipe with Impermitek Cleaner.
8	Passivator must be completely removed by mechanical abrasion. Apply coat of copper sulfate solution to the prepared galvanized metal surface to assure removal of passivator. Properly prepared surface will turn black indicating the passivator has been removed.
9	Contact Impermitek to confirm primer requirements.
A	Adhesion test essential to confirm primer acceptability.
N	Primer is typically not required. Solvent wipe only.