

Environmental Considerations

Impermitek's systems and components can be installed year-round with proper preparation and some adjustments for weather conditions. Generally, the optimum ambient temperature range for application of most Impermitek liquid applied components is between 50°F (10°C) and 75°F (24°C), with 5 degrees above the dew point.

For certain products, the resin grade and weather additives may be used to assist with application in both lower and higher ambient temperatures. Please note that some Impermitek resins and weather additives allow for application at ambient temperatures above 95°F (35°C).

Substrate temperatures should be 115°F (46°C) or below. When the UV index is greater than 7 or the substrate temperature is greater than 115°F (46°C), additional protections are recommended. Applications completed outside recommended temperature ranges can result in issues with curing, adhesion, and aesthetics

In all cases, ensure conditions are satisfactory to begin work and remain satisfactory during the installation of specified materials. Materials and methods should be adjusted as necessary to accommodate varying project conditions. Materials should not be installed when conditions are unacceptable to achieve the intended results.

Pot Life & Working Times

Pot life and working times for all Impermitek resins can be affected by air, substrate, and ambient/resin temperature, which are all factors in the proper application of Impermitek's components.

Resin temperature is generally the primary influence on pot life and cure time. In high and low ambient temperatures, provide jobsite protection for resin storage and mixing for optimum pot-life and workability.

Air, substrate, and resin temperatures should be monitored and must be considered to determine percentage of Impermitek Catalyst addition, the need to use of weather additives, pot life, and cure times.

In addition to monitoring ambient, substrate, and material temperature, other environmental conditions such as precipitation, sun, cloud cover, shade, wind, humidity, and dew point, all must be considered to ensure optimal application.

Cold Weather Impact

As material component temperatures drop, material viscosity increases. An increase in material viscosity increases mixing time while reducing speed of application and slowing cure times. Somewhat longer mixing times are required to thoroughly incorporate weather additives and catalyst in cold weather.

Hot	Weather	Impact
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With hot weather applications, typically above 90°F (32°C) or when the deck surface exceeds 105°F (40°C), extra work precautions need to be taken. High substrate, ambient, and material temperatures can reduce material viscosity and accelerate the curing process. Extreme high temperatures significantly accelerate the chemical reaction in catalyzed resins, reducing pot life and working window time.		
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Weather Additives & Catalyst

Inhibitors, accelerators, and catalysts are designed to provide good pot life and reasonable cure times at varying temperature ranges.

Refer directly to specific product data sheets for information on recommended application temperature ranges, proper substrate preparation, storage, handling, mixing, and important instructions.

Cold Weather Guidelines

Storage & Handling

Carefully read all pertinent Product Data Sheets (PDS), Safety Data Sheets (SDS), and application instructions prior to storage, handling, and application executed during periods of low temperature and inclement weather conditions.

In cold temperatures and winter months, keeping Impermitek materials and resins warm will help maintain ideal cure times and keep resins more workable. Impermitek recommends the following guidelines to ensure easy and successful applications in cold weather:

- Store products in dry warm enclosures or temperature controlled heated spaces.
- Keep mixing station near the material storage area.
- Use an insulated rooftop hot box with a 100-watt light bulb to help keep the product warm while in use.

- In extreme cold, employ tenting and portable heaters for resins stored outdoors.
- Work area tenting and portable heaters may be necessary to keep project moving. Movable enclosures to accommodate work areas and stationary enclosure for resin mixing may be needed.

Self-Adhered Base-Plies & Primers

During cold weather, the ambient temperature should be at least 40°F (4.4°C) and rising for Impermitek's self-adhered primers and base-ply membrane application.

The self-adhered primer and membrane temperature should be conditioned to 70°F (21°C) or higher at the time of application. To ensure the primer is applied at 70°F (21°C) during cold weather, drums and pails should be stored in heated areas. Drums and pails exposed to cold temperatures should be provided with heaters to ensure the minimum application temperature is maintained.

Self-Adhered Base-Ply Cold Weather Application

Temperatures below 60°F, UV exposure, wind, and surface temperatures are factors that can affect adhesion of self-adhered membranes. Depending on weather conditions and material temperature, the entire self-adhesive underside of the membrane, including the seam area, may need to be heat activated to ensure acceptable adhesion and a watertight self-adhesive seam.

Relaxation of sheet membranes are required before installation. The "rule of thumb" is to relax rolls as necessary to facilitate full contact without lifting or wrinkling of the membrane. Unroll and cut SBS-modified bitumen roll goods into halves or thirds, typically a maximum 18 feet (5.5m) lengths, and allow to relax a minimum of 15 minutes prior to application. Longer periods of relaxation may be required depending on project conditions. Broom in or roll the membrane immediately after to ensure complete contact with the primer and substrate.

Certain weather conditions may require the side and end laps to be either heat welded or hot air welded closed.

Hot Weather Guidelines

Storage & Handling

Carefully read all pertinent Product Data Sheets (PDS), Safety Data Sheets (SDS), and application instructions for specific product environmental restrictions, recommendations or

requirements prior to storage, handling, and application during periods of high temperature and inclement conditions.

Application of Impermitek's liquid-applied components during extremely hot weather should be approached with caution to avoid issues with curing and adhesion. In hot weather keeping resins cool will retain pot-life and working times. For temperatures above 70°F (21°C) and strong daytime UV exposure, the following guidelines should be followed to ensure ease and success of application:

- Store products inside conditioned spaces. When outside, store in shaded location with air flow. A raised canopy may be needed.
- Keep mixing station near the material storage area.
- Only remove materials from protected storage when ready for use during application.
- Use movable canopies to shade the active work area and the area directly ahead of the active work area, as well as the mixing station.
- Keep resin products as cool as possible and out of direct sun during mixing and prior to application.
- Pre-mix all resin components for 2 – 4 minutes before batching down or adding catalyst.
- Mix smaller batches of resin products to accommodate shortened pot-life and limited working times caused by high temperature.
- Ensure that adequate workers are on-hand to spread and apply the catalyzed components. On flat open areas, use an appropriate notched squeegee or notched rake to spread primers, membrane base coat resins, and self-leveling mortar.
- DoO NOT apply Impermitek materials when substrate temperatures exceed 120°F (49°C), unless approved by Impermitek's Technical Team.
- Schedule work during cooler times of the day. Consider performing application during off hours, i.e., early morning or overnight when air and deck temperatures are at the lowest.

Summary

Through proper product selection and installation, the success of your project will be ensured. Impermitek Technical Support is always available to assist with recommendations to optimize product application, especially during cold and hot weather extremes.

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 by the Designer of Record and or applicator for each individual project as needed.

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