

## MOISTURE CONTROL INSTALLATION WEATHER CONSIDERATIONS TECHNICAL BULLETIN

Creteseal® CS2000™ and Creteseal® MAX™ are both extremely effective and proven moisture control systems. Both products require installers follow manufacturer recommendations with respect to installation—this includes following applicable ACI and ASTM standards for concrete placement as well as slab finishing (new pours) and preparation (new pours/retrofit slabs). While Creteseal® CS2000™ and Creteseal® MAX™ are both excellent products, there are environmental conditions that can affect their installation. Creteseal® CS2000™ and Creteseal® MAX™ should both be installed in covered and protected conditions whenever possible. Avoiding extremes of precipitation, heat, and cold during the installation process helps ensure the moisture control system's efficacy. Excessive precipitation can limit the effectiveness of both products as a result of dilution and resultant bonding/penetration with the concrete substrate. Excessive heat can result in accelerated evaporation rates and related cure times. Excessive cold can result in thick, high-viscosity material that negatively affects penetration and bonding.

## To ensure quality Creteseal® CS2000™ installations, it is important to note these weather-related considerations:

- Severe/Inclement weather such as rain, snow, cold, excessive heat, wind, or job site conditions such as concrete not exposed to direct sunlight will affect the rate of concrete hydration and may impact the optimal application timing of Creteseal® CS2000™.
  - It is important for all parties involved in the installation process to routinely review weather forecasts for precipitation, or other unusual weather conditions, when scheduling jobs.
- Onsite storage for Creteseal® CS2000™ must ensure that it not be allowed to freeze.
- Prevailing seasonal weather conditions can have an impact on project execution timing. If a project is scheduled in a period of high precipitation and the project site will not be environmentally protected (enclosed) for several weeks or months, these conditions may increase slab moisture levels, potentially impacting the flooring system installation. If these conditions are likely to exist, it may be more appropriate to install the Creteseal® MAX System™.
- COLD: Slab temperature needs to be above 34 degrees for effective penetration into the concrete slab.
   OBEX recommends following ACI's 306R-16 Guide to Cold Weather Concreting during SOG placement.
  - In instances where the slab is finished in the afternoon with saw cutting afterwards, Creteseal® CS2000™ installation may need to be scheduled for the following day.
  - After placement, SOG temperatures should be maintained via blanketing and/or radiant heating elements in accordance with ACI 306R-16.
- HEAT: Temperatures over 90 degrees with rapid slab evaporation may necessitate pre-wetting the concrete slab with clean potable water prior to the Creteseal® CS2000™ installation.
  - In this case, the slab should be spray-misted with water using the OBEX-provided sprayer.
- HEAT/DRY/WIND: Occasions marked by excessive heat, dry and windy conditions will require an immediate follow up of water spray mist to aid in the penetration of the product and reduce the evaporation rate.



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- PRECIPITATION: If the newly poured slab surface is impacted by rain during finishing, these conditions may require a delay of the Creteseal® CS2000™ product installation. Excessive water on the concrete surface may increase the risk of surface delamination, increasing the potential need to grind the surface. It is critically important that the original concrete design mix not be materially impacted by additional water negatively affecting the water to cement ratio (w/c ratio).
  - In these instances, a delay in installation may be appropriate as well as a change in product. Please contact our Technical Services Group with any questions and to arrange an alternative material delivery, as appropriate.
- PRECIPITATION: If within two (2) hours after initial application the concrete slab is subjected to heavy rainfall and puddling occurs, re-apply Creteseal® CS2000™ product to these areas as soon as weather conditions permit. Additional product for reapplication will be provided by OBEX please contact our Technical Services Group to arrange expedited material delivery.

## To ensure quality Creteseal® MAX System™ installations, it is important to note these weather-related considerations:

- Onsite storage for Creteseal® MAX System™ must ensure that it not be allowed to freeze.
- COLD: Application temperature needs to be above 50 degrees.
  - Verify slab temp is at 50 degrees (or higher) using an infrared thermometer.
  - Polymers in two-component resin-based systems will cure slower in lower temperatures and will need to be pulled harder to spread it/thin it to the manufacturer's specified thickness.
  - If slab temperature and/or air temperature is below 50 degrees, the General contractor/Installer must rent space heaters for the duration of the installation.
  - One (1) space heater should be placed next to the MAX pallet to keep the material temperature above 50 degrees which will significantly aid the application process.
- PRECIPITATION: Creteseal® MAX<sup>™</sup> may be installed in an unacclimated space, however it must be protected from precipitation intrusion (roofed, with no roof leaks).
- CONDENSATION: Depending on combination of cold temperatures and humidity levels, the slab may experience condensation. Dew point is the temperature at which water droplets form, depending on temperature, barometric pressure and relative humidity.
  - If condensation appears on the Creteseal® MAX™, or subsequent primer application the day after the job, it is recommended space heaters be employed to dry the condensation from the surface while the product cures.