

Floor Preparation

1. FLOOR LIMITATIONS

If applying on new concrete: A new concrete slab should cure preferably for a minimum of 90+ days to allow the concrete substrate to sufficiently air dry and shrinkage to take place before epoxy coating application.



If applying over an existing coating: When over-coating existing coatings, compatibility and adhesion testing is recommended, and existing coating must be acknowledged as determining the adhesion and performance of all subsequently applied materials. When over-coating an existing coating, the entire surface must be sanded to remove all gloss. If an old coating is not sanded properly, this can result in peeling due to lack of adhesion.

2. CLEAN

Before applying CTM Garage Epoxy Kit, the concrete substrate will need to be clean and very dry, free from laitance, dirt, grease, oil, and any other forms of surface contamination that will prevent good adhesion. Ensure the surface has been swept and vacuumed clean, free of any dust, dirt or weak unbonded concrete. If the floor is not correctly cleaned, the coating may not adhere correctly or have traces and imprints of debris.

Oil and grease stains can be removed using commercially available concrete degreaser following the manufacturers printed instructions. Any oils left on concrete will result in fisheye markings, black patches, or wet patches. Oil and grease stains must be removed prior to sanding to prevent spreading the contaminate across the entire surface.

IMPORTANT: If water is used to rinse the surface clean, allow ample time for the concrete to fully dry before proceeding with additional mechanical surface preparation and general coating application.

Protect all surfaces outside the application. Coating can only be removed by mechanical means once hardened.



3. REPAIR



Any cracks or holes should be repaired using a crack filler prior to epoxy application. The CTM Epoxy Garage kit is **NOT** to be used to fill cracks or holes. Be sure to follow the instructions from the crack filler chosen.

Once the crack filler has cured, sand over the surface to ensure a smooth transition, level with the surrounding substrate. Sweep and vacuum up all dust from your floor again.



4. GRIND

Mechanically prepare all concrete floor surfaces using sanding or grinding equipment that can be typically rented at your local hardware stores.

Using a grinder minimizes the risk of cracking. It is **NOT** recommended to use other types of preparing methods.

Surface preparation must achieve an open surface profile equivalent to ICRI - **CSP 3** (see middle picture below) similar in texture to a fine sandpaper. A smooth, poorly prepared concrete will prevent the epoxy from penetrating the substrate to achieving maximum adhesion that may result in delamination in-service.

Vacuum all dust from the grinding process.



5. HUMIDITY TEST



Perform a concrete moisture level test using a moisture meter or a plastic sheet.

Moisture Meter: The concrete must be equal to or less than 4% parts by weight when measured by Tramex CME Concrete moisture meter at the time of application of the primer coat.

Plastic Sheet: Duct tape a 45 cm x 45 cm (18" x 18") polyethylene sheet directly to the prepared concrete surface.

Wait a minimum of 24 hours. If there is visible condensation under the plastic sheet or darkening of the concrete, there is too much moisture and the surface cannot be coated. A dehumidifier can be used to remove moisture from the environment above the floor to help dry out the concrete surface faster.

Retest concrete substrate to confirm acceptability after 24 hours.

Environment: Ensure the coating is being applied at ambient temperatures between 10 °C (50 °F) and 30 °C (86 °F) with a maximum relative humidity of 80%. If application environment is out of this range, there is possibility for improper cure such as wet spots, poor adhesion, or other surface defects.