

TECHNICAL BULLETIN

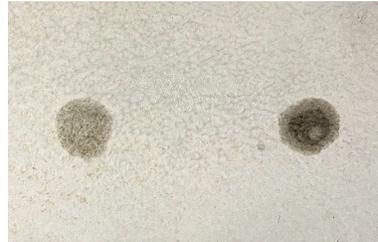
Preparing Concrete Floors

When painting concrete floors, many factors must be considered prior to the application of any coating. One must consider the condition of the concrete, moisture content, is it coated, are there curing sealers or form release oils on the surface, to mention a few. The chosen coating system will only perform as intended if the proper surface preparation is achieved. To assure that the specified coating system adheres, the following are just a few of the recommended steps and best practices.

Bare Concrete

Most concrete floors in interior buildings or garages will have some type of curing sealer or densifier at the surface – up to ¼" in depth. These types of additives are applied during the curing process, resulting in a much harder, less dusty substrate. In the case of concrete buildings, such as poured-in-place concrete "tilt-ups", there may also be form release oils or bond-breakers applied on the floor to assist in separating the newly poured walls from the existing floor. Form release oils, bond-breakers or any other type of surface contaminant, such as oil, grease, glue, or dirt, must be removed through pressure washing, steam or chemical cleaning. To determine if curing sealers are present, a simple water-bead test must be conducted to ascertain whether the concrete floor is porous to allow a coating to penetrate.

Water-bead Test (qualitative) should be conducted after the floor has been properly solvent cleaned. Pour several drops of water onto the dry surface of the concrete; if



the water is absorbed into the concrete and the appearance begins to darken, the result is a PASS. If the water beads on the surface and does not penetrate or absorb

into the concrete, the result is a FAIL due to the presence of curing sealers.

If curing sealers are present, they must be completely removed in order to achieve a porous substrate that will allow a coating to penetrate and adhere. It is a common mistake to use an acid solution to etch and remove curing sealers. These acids can only react with a clean, sealer-free concrete surface. Acid etching is the least effective means to providing adequate porosity and should only be used on concrete floors that are clean and free of curing sealers, release agents or other surface contaminants. The most effective means to removing curing sealers from concrete floors is to abrasive blast, shot blast or diamond grind the surface. The result will be a well profiled concrete surface that is free of oils, sealers, release agents or other foreign matter.

Previously Painted Concrete

Most manufacturers have very detailed surface prep requirements for concrete floors that would require complete removal of any existing floor coating. We suggest that you contact a manufacturer's representative to provide the best recommendation.

Please contact your local Dunn-Edwards sales representative for more information.

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4885 East 52ND Place, Los Angeles, CA 90058
(888) DE PAINT (337-2468) | dunnedwards.com

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