



## CURECRETE DISTRIBUTION, INC.

### Technical Services

Bulletin No. 22, Revision 2

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## **THE USE OF THE ASHFORD FORMULA ON SOFT, CHALKY CONCRETE SURFACES**

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Some concrete floors may dust or wear even if The Ashford Formula has been applied. Such cases are commonly a result of problems with the surface of the finished concrete. This assessment has been made in light of several petrographic examinations of core samples taken over time from suspect concrete slabs.

Typically, a slab surface is soft, chalky, or dusty as a result of carbonation from the use of un-vented heaters, extra water added at the job site to make the concrete more workable, or because the slab froze while curing. In nearly every case, additional applications of The Ashford Formula solved or alleviated these problems.

It is important to understand that if the concrete surface is not sound, The Ashford Formula will not be able to perform as expected—particularly if applied at standard coverage rates. In a recent test report, Construction Technology Laboratories stated: *“The surface hardener, if applied to a carbonated surface, would also exhibit a form of dusting or surface failure since the hardener is placed on a material with poor integrity...”* For this reason, our warranty does not apply to concrete surfaces that lack structural integrity; otherwise, a concrete surface will perform 100% of the time since the chemical reaction always takes place.

There are primarily two reasons as to why The Ashford Formula is less effective on substandard surfaces:

1. For much of its reaction, The Ashford Formula relies on certain by-products of the reaction between water and cement. If that reaction is limited by carbonation or poor water-cement ratio, The Ashford Formula's chemical action (at least at standard coverage rates,) is adversely affected. However, *further* applications of The Ashford Formula (often using enough material to arrive at only 50 square feet per gallon) appears to reactivate the stalled process of hydration, allowing it to continue its own sealing and hardening.
2. Substandard surfaces are also generally more porous than sound ones. Resulting in more material being required to fill the larger voids with crystalline structures.

If it is known that a floor is abnormally dusty, chalky, or soft, additional applications of The Ashford Formula may be a good remedy. Additional use of The Ashford Formula

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should be considered only as a *possible* solution. In extreme cases, consecutive applications of The Ashford Formula may not solve the problem.

The following steps are to be followed should additional applications of The Ashford Formula be considered:

1. Clean the floor surface with a good detergent and an aggressive scrub. Rinse thoroughly. No standing water should be on the surface. Caution: If aggressive scrub begins to remove the concrete surface, use less aggressive brushes and less pressure.
2. Immediately after cleaning, apply The Ashford Formula liberally. Allow for as much penetration of The Ashford Formula as the concrete surface will absorb.
3. Scrub in The Ashford Formula.
4. Allow the concrete surface to dry, do not flush, or squeegee.
5. Wait one day, and apply more material. Should the floor still absorb additional amounts of The Ashford Formula, repeat steps 2 through 4. Perform this procedure on a daily basis until the concrete is no longer capable of absorbing additional applications. (i.e., literally allow the concrete floor to absorb as much of The Ashford Formula as it will penetrate.)

***NOTE:*** *The end of this process should result in all of The Ashford Formula **having been absorbed into the concrete**, and there should be **no residue left on the surface**. Remember, the normal way of keeping The Ashford Formula residue off the surface is to flush it and squeegee it. However, with problematic floors, **the residue must be kept off the surface through absorption**.*