TECHNICAL BULLETIN

Impacts of Cleaners and Disinfectants on Paint Films

Can Disinfectants and Cleaners Negatively Impact Paint Film?

Like many harsh chemicals, cleaners and certain disinfectants can damage paint film — causing it to soften; blister; or, even, degloss (remove glossy finish) or completely destroy it. However, there is a wide range of cleaners and disinfectants available — and not all harm the paint film.

Following label instructions and careful testing can help determine if a cleaner or disinfectant will negatively impact paint film.

Instructions for Pre-mixed, Sprayable Cleaners and Disinfectants

- Read all label instructions thoroughly.
- Test the cleaner/disinfectant in an inconspicuous area prior to spraying it on the entire surface.
- Use a damp cloth or nonabrasive sponge to remove surface dirt, marks, stains and any excess cleaner/disinfectant. Depending on what you are attempting to remove, some scrubbing may be necessary.
- Never allow the cleaner or disinfectant to dry on the surface. The longer it remains, the more likely it will damage the film or leave an unwanted residue behind.
- Rinse the surface if needed and only if the cleaner/disinfectant's instructions recommend it.

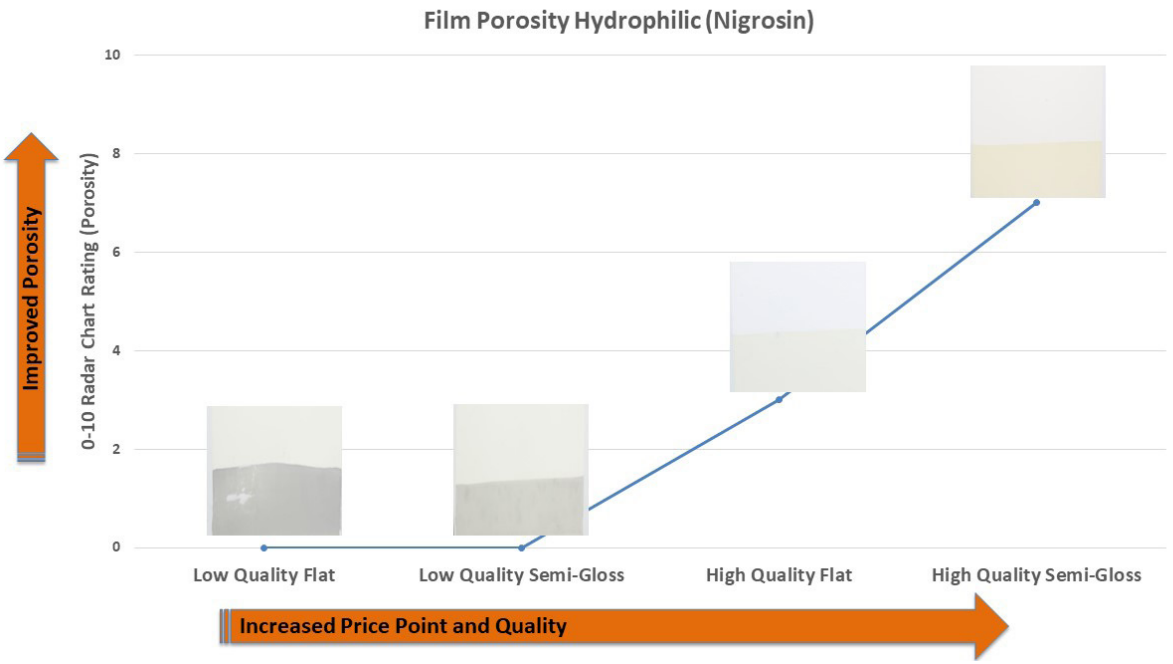
As shown in the Image 1 below, the longer a chemical is allowed to sit on any surface, especially a paint film, the greater the chance is to leave some type of damage to the paint film. The photo below shows an example of a cleaner/disinfectant that was allowed to sit on the paint film for 30 minutes and up to 1 hour, using a square piece of paper towel to allow the chemical to soak into the paint film. As you can see, the 30 minutes square on the top has very minimal to no impact on the paint film. However, on the bottom, where the solution was allowed to sit for a full 1 hour, you can see the whitening of the paint film and small blisters that have formed.

Image 1 – Example of Impact of Length of Disinfectant/Cleaner Soaking on Paint Film

Why Does One Paint Clean Easier than Another?

Truth is, not all paints are created equal. The binder type, pigment and other formulation variables influence a paint's ultimate washability. And, just as all paints are not created equal, binders and pigments are not equal — as there are varying degrees of resin and pigment quality. The saying, "you get what you pay for," may be more applicable to paints more than any other building material. One rule of thumb is that as a lower gloss finish (such as a Flat) transforms into a higher gloss (like Eggshell or Semi-gloss), the film's porosity decreases, making cleaning easier. This is because finishes become lower gloss thanks to the addition of extenders — typically, particle-size, mined mineral deposits, such as calcium carbonates, clays, etc. — that provide surface roughness and flatten the finish. Through the flattening process, coating porosity and surface roughness often increase.

As shown in the illustration below, which illustrates a hydrophilic stain that has been allowed to sit on the coating for a short time before attempting to remove. As you can see in Graph 1, the higher gloss and higher-quality products (upper-right-hand side of the graph) typically have easier-to-clean surfaces and, therefore, are less likely to absorb as much of the stain.



Graph 1 – Illustration of Quality and Gloss Impact on Porosity

Follow Us

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

Dunn-Edwards PAINTS®

THE #1 CHOICE OF PAINTING PROFESSIONALS®