

## Graphic Films Meet Low-VOC Paints: Read This Before You Wrap Another Wall!

It's the biggest challenge many installers are facing today: Graphic films are not adhering to painted surfaces as reliably as they once did. What's going on? Did film manufacturers change their adhesives? No! It's all about the paint. We'll tell you more about this problem and offer you a simple, effective way to help make sure your wall installations are successful.

Paints that are low in Volatile Organic Compounds (VOCs) are now the most commonly available wall paint. These newer paint formulations are being driven by laws intended to help protect the environment – something we can all appreciate. However, the new paint formulations have reduced how well a film's adhesive can adhere to a painted wall. Because the paint formulations are protected by trade secrets, it is difficult for any film manufacturer to understand how film adhesives interact with these paints. That's why 3M has devoted many resources to learning the cause of this problem and how to resolve it.

“Graphics not adhering to walls is a very real problem for installers, no matter what film they are using,” said Joe Walton, 3M advanced technical service engineer. “We have received videos from installers showing film peeling right off the wall. We've seen photos of films installed one day and they are lying on the floor the next morning.”



### Film Adhesion Testing and Wall Prep – It's No Longer Optional

The new low-VOC paints vary so much that one film may adhere satisfactorily to one paint, but very poorly to another. The way a graphics manufacturer and installer can be assured of a successful installation is by using the right advanced wall cleaning method and film adhesion testing before installing the finished graphics. A graphic installation failure can be costly for your business and your reputation, so rather than risk it, build time into your job estimate for wall prepping and testing.

“I've had a lot of calls about major film failures where the installer doesn't know what paint is on the wall, and they didn't do an adhesion test,” said Walton. “Installers and graphics manufacturers must test film adhesion on every job. There is no other reliable option.”

Testing is simple. Just clean an area on the wall using the 3M™ Enhanced Adhesion Cleaning Method (see the “Ask the Expert” column in this newsletter for specific details on this method). Apply samples of the film you intend to use to the surface. Wait 15 minutes and then measure its adhesion value as you pull down on the film. (Researchers at 3M have found that cleaning the wall **TWICE** with a mixture of 70 percent isopropyl alcohol (IPA) and 30 percent water can significantly boost adhesion for nearly any wall film applied to a painted substrate.)

“Every application surface must be considered contaminated and be cleaned before testing adhesion or installing the job. Isopropyl alcohol is readily available everywhere in the U.S.,” said Walton. “Cleaning with it is easy, fast and economical, and proper substrate preparation makes all the difference to the success of an installation. Many installers take the time to thoroughly clean a vehicle to be sure they have a great installation. It’s just as important for walls.”

### Still Not Enough Adhesion? You’ve got options!

On rare occasions, even the double washing specified in the 3M™ Enhanced Adhesion Cleaning Method doesn’t increase the film adhesion to the level you desire. The solution may be as simple as washing the wall just one more time with the IPA and water solution.

Here’s another option. Consider applying a high-tack film, such as the new [3M™ Scotchcal™ High Tack Graphic Film IJ39](#), to the substrate. The aggressive adhesive on this film provides a permanent new surface on the substrate, and allows you to easily apply any smooth wall film, and even change out graphics, if required.

With the rapidly changing formulations of paints, there is no single film or adhesive from any film manufacturer that works best on all painted surfaces. However, by establishing the best practice of testing every film you plan to use

for a job, on every wall that will receive graphics, and using the 3M™ Enhanced Adhesion Cleaning Method both for the test and for the actual job installation, installers can have confidence in the performance of the graphics they install. Again, be sure to read the Ask the Expert column for specific instructions on how to test and prep walls. “Every application surface must be considered contaminated and be cleaned before testing adhesion or installing the job. Isopropyl alcohol is readily available everywhere in the U.S.,” said Walton. “Cleaning with it is easy, fast and economical, and proper substrate preparation makes all the difference to the success of an installation. Many installers take the time to thoroughly clean a vehicle to be sure they have a great installation. It’s just as important for walls.”



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