

HP Latex 300 Printer Series

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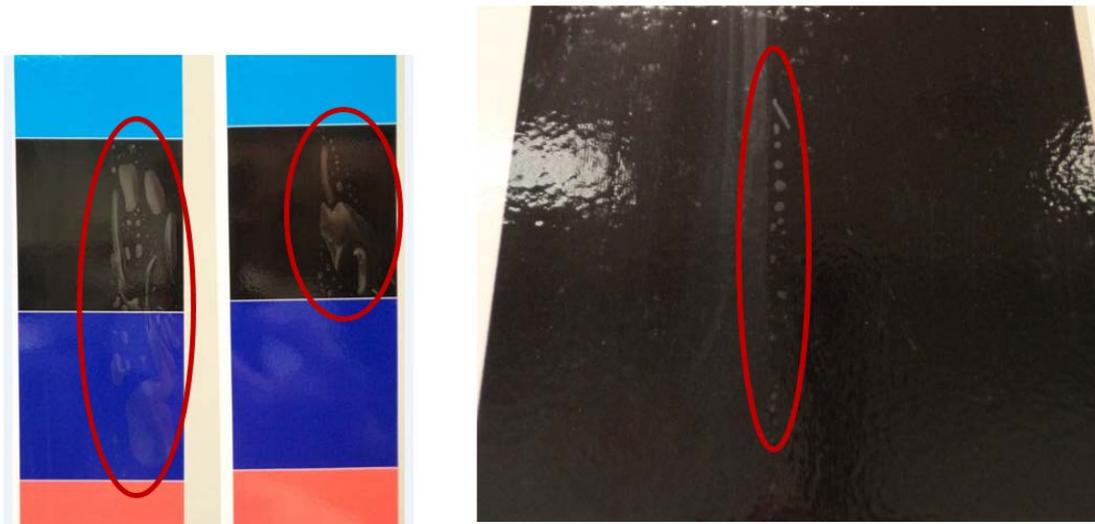
Lamination Tips & Tricks for Self-Adhesive Vinyls

This document applies to a limited amount of **self-adhesive vinyls** that are printed with HP 831 and 881 Latex Inks, **protected with an overlamine** and that, at least, concur with one of the following during application: (1) applications with overlapping zones, (2) applications that require pre-masking or (3) applications with a short time between lamination and the application process.

Description and symptoms

A limited amount of laminates may peel, show bubbles or present relatively low initial adhesion values when applied to self-adhesive vinyls printed with HP 831 and 881 Latex Inks.

The symptoms are especially critical when the laminated substrates are applied right after the lamination process, on applications with overlapping zones or on jobs that require the use of pre-masking tape.



Background

Most Self-adhesive vinyl signs are protected prior to their application. The most commonly used solution consists of applying a self-adhesive transparent film over the printed sign. To be able to have good protection and a successful sign installation the adhesion bond between the printed sign and the protective laminate needs to reach a certain degree.

If this adhesion value is not met, the laminate may detach from the printed sign during the installation process. Sensitive signs that may show this issue are:

- Wide signs that require **overlapping** zones between two panes. During the installation process different tiles need to match positions with each other. The way to achieve the position matching may require an attach/remove trial/error process with the different tiles. In case of using a self-

adhesive substrate with a high initial tack, the substrate may strongly adhere to the pre-installed pane and cause the laminate to detach.

- Signs that require the use of **pre-masking** tape. During the pre-masking tape removal process, and in case a strong adhesive pre-mask tape is being used, the laminate may detach from the printed sign.
- Signs that, by the nature of the application, require **very thin laminates with a weak initial adhesion force**. Some laminates need to have a weak adhesion force in order to be extremely thin. (Laminate adhesion force, in most cases, is directly related to the amount of adhesive that it contains. Having less adhesive allows for thinner laminates.)
- Application of signs right after being laminated. The delamination issue can be more noticeable when applying samples right after the lamination process. The reason for that is that the **adhesion force between laminate and self-adhesive vinyl tends to grow with time**.

Recommendations to follow to avoid delamination

1. Ensure that the laminate you're using is **compatible with Latex** inks and with your application needs. Perform a pre-test before attempting to manage a big job.
In case that the initial or final adhesion value is not enough for your application's requirement ask your media provider/vendor to suggest a laminate with a stronger adhesion force to you.
2. Ensure that your samples are **completely cured** before attempting to laminate a job. Non-cured zone signs don't offer a good surface to properly attach a laminate and may cause premature failures. To ensure proper curing:
 - Use, when possible, the available published profiles.
 - Print within the recommended environmental conditions defined in the user guide. Media presets have been created in a 20°C/60%RH environment. In case of having lower temperatures and/or higher humidity values a profile tweak may be necessary.
 - Read and follow the installation requirements regarding minimum surface and air renewal values.
3. In case that proper curing is not assured when using published profiles, **modify the media preset** to achieve it. Settings that may help to create more robust curing are:
 - Amount of ink. Reduce the ink percentage to allow better curing performance.
 - Number of passes. Increasing the number of passes provides more time to cure samples.
 - Increase inter-swath delay offset value. As with increasing the number of passes, it provides more time to cure samples.
 - Increase curing temperature. If your substrate allows a higher temperature, increase it to improve curing.
4. **Give laminated samples time before applying them**. The adhesion bond between the laminate and the self-adhesive vinyl will increase with time. A waiting time of 48-72 hours between lamination and the application process may be necessary when using low-tack laminates on applications with overlapping zones or on applications that need pre-masking tape.
In case of rush jobs that need to be applied right after lamination, take extra care when pulling overlapped zones and masking tapes. (Pull the substrate smoothly without jerking, forming an angle as close as possible to 180 degrees.)
5. Ask your media provider/dealer for an **alternative laminate** with a stronger bond adhesion or a pre-masking tape with a less aggressive adhesion force.