

SELF-ADHESIVE MATERIALS: SUBSTRATE PREPARATION AND APPLICATION

Introduction

Ritrama self-adhesive materials can be applied to a wide variety of substrates. It is important to consider the substrate conditions before applying the film (dirt, silicone or other contaminants, dry, porous, etc.) in order it always receives the treatment required for a successful application, here following some recommendations when applying self-adhesive materials to various surfaces.

Cleaning Recommendations

The entire substrate surface has to be thoroughly cleaned before applying the self-adhesive material, even if it may look clean.

1. Clean the substrate with a mild detergent solution, avoid soaps or preparations that contain waxes, oil or lotions. Rinse with clean water (do not leave any traces of soap on the surface).
2. Dry the surface with dry lint-free cloth or a clean paper towel.
3. Wiping with solvent-saturated cloth such as isopropyl alcohol* or denatured petrol, until all dirt or grease has been removed.

** if you are using industrial grade IPA, mix 1 part of IPA with 2 parts of water. If you are using rubbing alcohol (90°), do not dilute it. For some substrates like latex paint, oil-based paint, ABS, Plexiglas, fiberglass, polystyrene, it is not recommended to use IPA. If you are using other cleaning solvents, be aware that some window cleaners contain waxes. Be also aware that automated vehicle washing equipment could use chemicals which may interfere with adhesion. Always test specific cleaners in an inconspicuous area before use and refer to the manufacturer recommendations.*

In addition, the following factors should be considered prior to self-adhesive materials application:

- Painted surfaces must be completely dry and hardened prior to decal application.
- Paints dried at room temperature require several days, at least 7 to 10 to be completely dry, only after that decals can be applied.
- Solvent residues in painted substrates (paint not perfectly dried) can affect adhesion and cause excessive shrinkage or blistering: retained solvents can be removed with a hot air gun. This is particularly important in case of irregular surfaces (rivets, grooves).
- Damaged surfaces can also affect the decal adhesion, it's important to consider seriously the repair of a damaged surface before applying graphics. In case of corroded surfaces, treat preferably the surface with an abrasive plug (fine) to remove the particulars before cleaning the surface.

Self-adhesive materials application

- Decals must be kept flat and free of dirt and grease at all times.
- Printed decals must be fully cured prior to application.
- Ensure sufficient working space available for fixing process.
- Ensure decals have been stored under the recommended conditions of 22°C (71,6°F) and 50-55% relative humidity.
- Ensure temperature at point of application is an absolute minimum of 5°C (41°F).
- Arrange decals in logical manner according to sequence of application. Use a table or rack of sufficient size to facilitate this.
- Clean cloths, squeegees, knives, pins and brushes should be close to hand.
- A clearly marked application plan must be available for the operators.
- It is essential that contact with the adhesive side of the decals be kept to an absolute minimum. Ensure substrate decal to be applied is free of dirt and grease.
- Ensure the substrate decal to be applied to has a level and even surface.
- Do not stretch the decal during application.
- It is particularly important not to apply excessive stretch to the decals into the corners. This will result in stretching and eventual delamination in service.
- Remove any air bubbles by puncturing with a pin and firm application of the squeegee.

In case of doubt, ask for further information:

<https://www.ritrama.com/en/contacts/#information-request>

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Considering the multiple uses of Ritrama's products, the user is recommended to test the products prior to their use, so to determine and ascertain the suitability and performance of the product for its intended application and purpose.

The methods of conversion and application of Ritrama's self-adhesive materials are multiple and it is therefore essential that the users are aware of the particular method to be used, prior to commencing the production.

Printing: Testing for compatibility between product, printers and inks is always highly recommended before printing the product.

Application Systems and Conditions: it is recommended that the performance of the product be always tested in the actual applications conditions as substrate state (rough, smooth, flat or irregular shapes, moderate curves, with or without rivets); applicator technology (hand application or fully automated lines); specific stress on Ritrama material once applied (high and/or low temperature, mechanical stress, exposure to challenging environment conditions), et cetera.

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