



PERFORMANCE GUIDE

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Version #2 (0608)

Approved by J. S.

PRODUCT: **IMAGin[®]**
JT5529BFD Pro

PRODUCT DESCRIPTION: JT5529BFD Pro is a 2.1-mil soft white **gloss, highly conformable**, laminated PVC film designed for solvent-based ink jet printing. The product is coated on one side with an **aggressive**, permanent, opaque, acrylic pressure sensitive adhesive with air egress technology and supplied with an 80# polycoated 2-side release liner. JT5529BFD Pro designed for use by experienced applicators for long-term outdoor, vehicle markings on flat, curved, complex and riveted surfaces. Use of the correct overlaminates will extend the life of the graphic. Graphics manufactured using IMAGin B-Free vinyl and PSA over-laminating film when applied over rivets may result in some tenting and lifting around the rivet and does not constitute a breach in warranty.

| PHYSICAL PROPERTIES: | <u>TYPICAL VALUE*</u> | <u>TEST METHOD</u> |
|---|------------------------------|---|
| Peel Adhesion, lb. /in. (N/25mm) 180° on SS - 15min | 2.3 (10.0) | FTM - 1 |
| - 30 min. | 2.5 (10.9) | |
| - 24 hr. | 3.0 (13.1) | |
| Quick Tack on SS, lb. /in² (N/25mm) | 1.8 (8.1) | FTM - 9 |
| Dimensional Stability, (%) 48 hours @ 158°F | max 0.5 | FTM - 14 10" x 10" Sample bonded to aluminum. |
| Temperature Ranges, Minimum Application: | 50°F (+10°C) | |
| End Use: | -58° to 194°F (-50° to 90°C) | |
| Salt Water Spray 100 hours @ 5% solution | no change | ASTM B 117-03 |
| Water Immersion 100 hours immersed @ RT | no change | |

INTENDED FOR: Wide format, eco-solvent, solvent-based and UV-cured inkjet printing. To achieve the best possible print quality, please make sure that the correct ICC profiles or printer settings are used. Profiles can be obtained from our Distributors or can be downloaded from www.mactac.com/graphics. Printer and heater settings and ICC profiles can also be downloaded from some O.E.M. or software manufacturer's websites. JT5529BFD can also be screen printed.

DURABILITY: The outdoor durability of the unprinted film is 10 years. Over lamination of the inkjet-printed material with Permacolor[®] overlaminates delays eventual color fading that may occur over time. This color fading is mainly dependent upon the quality of the inks (see technical data sheets given by the ink manufacturers), the pressure sensitive media being used and the region in which the graphics are to be displayed.

MACtac requires the registration of a completed and signed Inspection Report for each vehicle wrap in the unlikely event of a future claim. This report identifies any potential problem areas and clearly defines the obligations between the applicator and the vehicle owner. A completed copy of the inspection report and the appropriate vehicle template must be on file at MACtac prior to application. The inspection report is attached at the end of the Application Guide TA2501 and the B-Free Vehicle Warranty MAC2588 which are available on the MACtac website at www.mactac.com/graphics. Registration acknowledges that your company has received the Application Guide and a copy of this warranty and agrees to all the requirements and limitations outlined in these documents.

REMOVABILITY: JT5529BFD Pro, when laminated, is cleanly removable for up to five years after application with high heat. “Removability” means that when removing the emblem, the pressure sensitive film will leave less than 20% of the adhesive on the substrate. Some substrates are affected by the application of the JT5529BFD Pro such as; acrylic glass, polycarbonate, polystyrene, nitro-cellulose paints and plasticized PVC’s. Besides damaging the substrate, subsequent removal could be difficult.

RECOMMENDATIONS:

Always test your combination of JT5000 products, inks and laminating films prior to commercial use.

1. **Printing Conditions:** Print in conditioned pressroom at $\pm 73^{\circ}\text{F}$ (23°C) and 50% RH. The maximum allowable ink saturation is 300%.
2. **Drying Step:** It is **critical** the JT5529BFD print is properly dried prior to laminating or application. While this is important in all solvent inkjet prints it’s especially so with JT5529BFD. We strongly recommend leaving the print *open to the air* (not rolled up in a tube) for a minimum of 24 hours prior to lamination or application. For average ink saturation (i.e.: 270%). Higher levels of ink will require additional drying time up to 48 hours or more. Residual solvents in the vinyl and adhesive will negatively affect the bubble free properties of the adhesive and can result in a significant build or loss in adhesion resulting in potential substrate or graphic failure and/or more residual adhesive being left behind upon removal. Additional hot air drying or IR drying will speed up the drying process and shorten the overall drying time.
3. **Laminating Conditions:** Ensure print is perfectly dry. Material must have 24 - 48 hr. drying time *open to the air*, not rolled up in a tube, prior to lamination or transportation. If the printed graphic is likely to be exposed to corrosive liquids, smoke, fumes, and highly polluted areas or there is a likelihood of scratching, it is highly recommended to laminate with **Permacolor LF3640** series (RAYZor) overlaminating films. Please be aware that adding an overlaminate will significantly reduce conformability to complex surfaces.
4. **Application Tape:** Use of an application tape (transfer tape) is **not recommended** or needed if an overlaminate is used. If you must use an application tape, use one with a Steel adhesion no greater than 4 - 6 oz/in. Upon removal of the application tape, you must head and re-squeegee all edges. Failure to do this will result in edge lifting.
5. **Not recommended surfaces includes, but is not limited to;** rubber and plastic, aged paint (chalking) and metals (corrosion or oxidation), improperly cured paint, surfaces with poor paint-to-surface adhesion, over existing graphics that must remain upon removal, oily surfaces, unpainted wood, etc.
6. **Transportation Conditions:** To allow for easy transportation, IMAGin JT5000 series can be rolled up, with the image out, with a minimum diameter of 6 inches (15cm). When the image is not protected by an overlaminate, make sure the print is completely dry and protected in a plastic bag. During transportation or storage, avoid exposing them to extreme temperature and humidity changes.
7. **Removing JT5529BFD Pro:** Heat the vinyl to approx. 160° - 180°F using a heat gun or propane torch or a weed burner for large areas (be careful not to burn the vinyl or the substrate). Pull off the BFD in small pieces. Listen to the sound of the vinyl as it’s pulled off. The noise level will increase as the vinyl and adhesive cools. At a certain level (experience is the best teacher) you will know when it is time to re-heat. This will help you prevent paint failure as you pull the graphic off. Any adhesive residue can be removed using a towel soaked in alcohol or other commercially available adhesive remover. *Be sure to follow manufacturer’s directions and use personal protective gear.*

SHELF LIFE:

2 years from D.O.M. when stored at $60/77^{\circ}\text{F}$ ($15/25^{\circ}\text{C}$) and 50% relative humidity in the original package.

* *Values given are typical and are not necessarily for use in specification.*

CALL 1-800-401-5005 for additional product information

IMPORTANT NOTICE: The information given and the recommendations made herein are based on our research and are believed to be accurate, but no guarantee of their accuracy or completeness is made. In every case, user shall determine before using any product in full scale production, or in any way, whether such product is suitable for user’s intended use for their particular purpose under their own operating conditions. User assumes all risk and liability whatsoever in connection with their use of any product. The products discussed herein are sold without any warranty as to merchantability or fitness for a particular purpose, or any other warranty, express or implied. No representative of ours has any authority to waive or change the foregoing provisions, and no statement or recommendation not contained herein shall have any force of effect unless in an agreement signed by the officers of seller and manufacturer. Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent without authority from the owner of the patent. The following is made in lieu of all warranties, express or implied: Seller’s and manufacturer’s only obligation shall be to replace or credit such quantity of the product proved to be defective at its discretion.

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