



MACHINES PLUS ACADEMY | PRACTICAL PRINTING GUIDE

Why DTF Transfers Fail After Pressing

A practical troubleshooting guide for edge lift, poor wash durability, cracking, press marks, uneven finish and transfers that look right but do not last.

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We share practical knowledge because better information leads to better decisions, better operators and better print businesses.

Prepared by Machines Plus
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The short answer

A DTF transfer can fail even when the printed image looks perfect. The final result depends on the complete chain: ink laydown, powder coverage, powder cure, film, garment, press temperature, dwell time, pressure and peel method.

The most useful troubleshooting approach is to identify when the failure appears: immediately after pressing, while peeling, after stretching, or only after washing.

Machines Plus field note

Do not blame the printer first. Once the transfer reaches the press, adhesion problems are often caused by finishing conditions, consumable compatibility or the garment rather than the printed colour layer.

Common failure patterns

What you see	Likely areas to investigate
Edges lift during peel	Press temperature, pressure, dwell time, peel timing, under-cured powder, uneven platen pressure.
Transfer comes off in wash	Adhesive activation, powder coverage, garment coating/finish, film/powder match, press calibration.
Cracking after stretch/wash	Excessive ink/white layer, over- or under-pressing, transfer too thick, unsuitable consumables or garment.
Rough powder outline / halo	Excess powder, poor powder removal, static, contamination or inappropriate adhesive particle size.
Glossy or patchy finish	Release sheet, second press, uneven pressure or inconsistent heat.
Colour shifts / garment scorches	Too much heat or dwell, dye migration from polyester, heat-sensitive garment.

Check the powder cure before the press

The adhesive powder must be cured according to the powder/film system. Under-cured powder may not activate evenly; over-curing can change the adhesive layer and make the transfer harder or less forgiving. The goal is a consistent cured adhesive layer, not simply “as hot as possible”.

Troubleshoot in this order

☐	Confirm you are using the correct film, powder and ink combination.
☐	Use the transfer supplier's recommended cure and press settings as the baseline.
☐	Verify the heat press is reaching the temperature shown on its display.
☐	Check pressure across the full artwork area, especially near seams and edges.
☐	Confirm the film is being peeled at the correct temperature - hot, warm or cold.
☐	Test on a known garment without heavy coatings, water repellents or unusual fabric treatments.



Wash test the corrected sample before changing production settings again.

Garment construction can change pressure

A collar, pocket seam, zip or thick side seam can lift part of the garment away from the lower platen. That means the press may be set correctly but the artwork receives uneven pressure. Use a suitable pressing pillow, platen or garment positioning method where required.

Moisture and polyester migration

Moisture can interfere with consistent pressing, especially in humid rooms or garments stored in cold areas. Polyester can also release dye when heated, causing colour migration into the transfer. Lower-temperature consumables or different garments may be required for sensitive polyester.

Build a test you can repeat

- Use the same artwork and garment while changing one variable at a time.
- Record the cure settings and press settings.
- Photograph the result after pressing and again after washing.
- Keep a known-good transfer and garment as a control sample.

The goal

A transfer is not approved because it looks good while it is still warm. It is approved when the adhesion, stretch, appearance and wash performance meet the standard you sell to your customer.

References & further reading

Epson SureColor F1070 User's Guide

<https://files.support.epson.com/docid/cpd6/cpd64429/helpcontents.html>

Roland DG TY-300 / TY-300i Direct-to-Film Printer

<https://www.rolanddg.com.au/products/printers/ty-300>

Important

This guide provides general educational information. Always follow the current instructions supplied by the manufacturer of your printer, ink, film, powder, heat press and substrate. Settings and maintenance requirements vary by product.

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