DTF POWDER CURING TROUBLESHOOTING CHART

Identify the stage first: printing and powdering > curing > pressing and peeling > wear/wash test. Symptoms point to checks, not guaranteed diagnoses.

SYMPTOM	POSSIBLE STAGE / CAUSE	FIRST ACTION
Powder stays grainy or dry	Possible incomplete melt or uneven heat delivery	Compare powder instructions with actual cure exposure; inspect coverage across the entire design.
Film curls, yellows, or scorches	Possible excessive thermal exposure; film may be incompatible	Stop that run. Check film heat limits and whether the oven/hover setup overheats one area.
Adhesive specks outside design	Excess powder or wet ink/contamination beyond artwork	Inspect film before curing; follow supplier instructions for removing excess powder.
Bare spots in adhesive	Uneven powder coating, weak wet ink or interrupted white underbase	Inspect printed film and powder coverage before adjusting heat.
Oily or blotchy film/transfer	Possible retained moisture, heavy ink load or process mismatch	Compare fresh film before cure and cooled film after cure; check supplier guidance and equipment ventilation.
Edges peel after pressing	Curing OR press heat, pressure, peel timing, garment, or materials	Verify the cure record, then check garment and transfer-specific pressing/peel instructions.
Cracks or lifts after washing	Potential material compatibility or incomplete bond; press/cure may contribute	Run a controlled sample, follow wash-test guidance and isolate one variable at a time.

STOP AND CHECK: Do not automatically raise oven heat, re-cure finished prints, or keep pressing failed transfers. Use the exact film, ink, powder, and equipment instructions. Remove loose powder away from the printer; follow the product SDS and approved ventilation/PPE.

Use this chart alongside manufacturer instructions. The same visible symptom may have several causes.

ONE-VARIABLE CURE TEST LOG

Use a small sample before customer production. Compare the same artwork, film, powder, ink and fabric while changing only one approved process variable. Avoid running tests outside manufacturer limits.

Equipment and materials

Printer / RIP / print mode	_____
Film brand / type / lot	_____
Powder brand / grade / lot	_____
Ink and white-ink setting	_____
Curing equipment / method	_____
Garment / fabric / transfer peel	_____

Supplier reference (fill in before testing)

Powder instructions: _____ Film instructions: _____
Approved cure method: _____ Stated setting / range: _____
Record actual readings when supported by your equipment. The display setting is not always the temperature reaching the film.

Trial record

Trial	Cure setting / dwell / belt speed	Observed condition after cooling	Press / peel / test result
1	_____ _____	_____ _____	_____ _____
2	_____ _____	_____ _____	_____ _____
3	_____ _____	_____ _____	_____ _____

Decision after testing

[ ] Accept: Supplier instructions followed; sample appearance and application acceptable.

[ ] Retest: One documented variable needs another controlled trial.

[ ] Escalate: Persistent defects, smoke, damaged film, equipment fault or unsafe conditions.

Notes: _____

Reference check: Epson DTF Film Printing Guide; your specific powder/film technical sheets; your curing equipment manual; the product Safety Data Sheet. A successful appearance check does not replace application and durability testing.