DTF Technology

Xennia Jade DTF

Color & Comfort

SunChemical®
a member of the DIC group
Color & Comfort

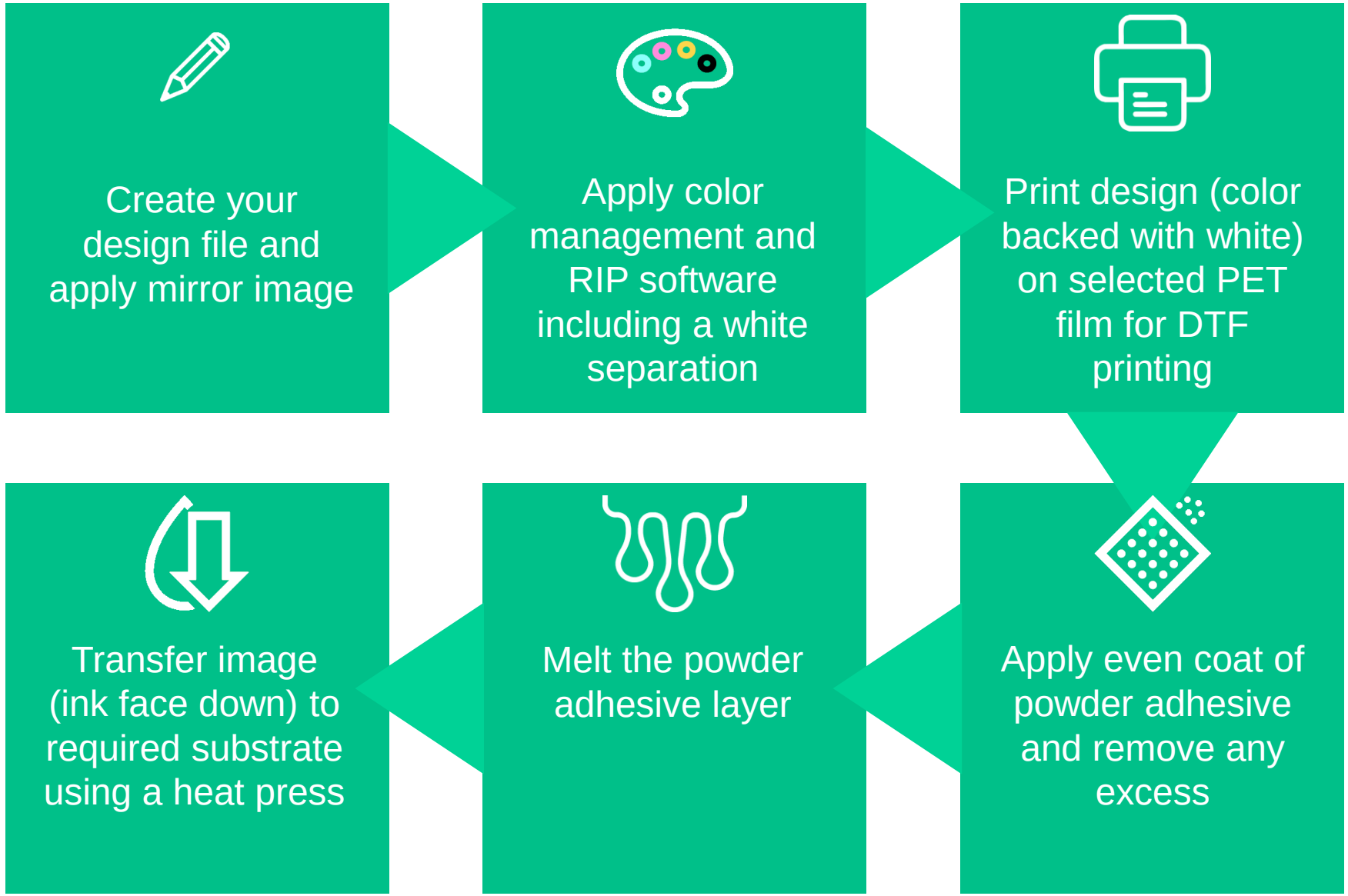
Direct to Film

Product details:

- Xennia Jade DTF
  - CMYK, White and DTF Adhesive Powder

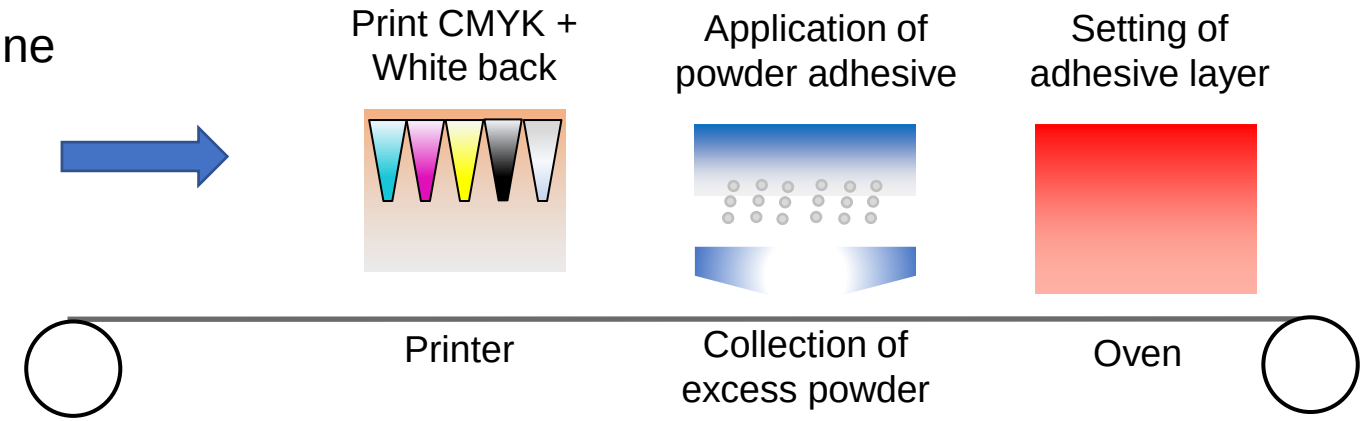
Color	Product Description	Product code	Pack Size
C	Xennia Jade DTF Cyan	91788011	1kg
M	Xennia Jade DTF Magenta	91788010	1kg
Y	Xennia Jade DTF Yellow	91787859	1kg
K	Xennia Jade DTF Black	91788012	1kg
W	Xennia Jade DTF White	91789286	1kg
Ad	DTF Adhesive Powder	91789287	10kg
Flush	Universal Flush	90376078	1kg

Process steps



Workflow

Roll to roll – In-line



Sheet fed

Considerations

- For best performance use a quality printer and quality ink
  - Low quality inks risk head damage, missing nozzles, lower colour density
- Ink sets are specific and require tuning of the CMYK + White layer plus compatibility with the powder adhesive for best results
- Not all PET films are suitable for DTF. For best results, printable two-sided cold peel film is preferred
- Good films have an ink receptive coating
- Choice of powder adhesive impacts performance of the print after transfer
- White ink will settle out over time – printers should have an ink management system like recirculation
- DTF carries a premium price vs. roll-to-roll pigment inks
- Regular DTG inks wont necessarily directly apply to DTF

Pros and Cons

Advantages	Disadvantages
Simple low-cost set-up	Slow process per print finished
Versatility - multi substrate potential	Printer maintenance needed
Digital screen print…	Waste – film, resin (unless collected)
No pre-treatment needed	Ink-adhesive-film combination key
Better stretch, no cracking	
Thin film – better hand feel vs DTG/Screen	
Gloss management possible	

Needs:

- Info from resellers on how they want to approach the market
- What support needs they have
- Types of films they want to promote

Adhesive application

- Semi-industrial in-line process includes adhesive application and fixation before uptake roll
- Adhesive imparts fastness properties, specifically wash resistance
- Adhesive added to hopper and shaken over print to create even film
- Excess adhesive removed by agitation of the film and collected for re-application (amount of adhesive remaining on the film depends on the dryness/tackiness of the ink layer)
- IR dryer used to “set” the adhesive to the ink layer
- Important to create a melt layer and not have grainy or powder adhesive still present
- Dry film continues to uptake roller

Adhesive applied is typically 2-6g per for every 1g ink

Thickness of adhesive layer can impact fabric hand feel and print layer apparent thickness”

Fixation/Transfer

- Adhesive and film combination dictates transfer conditions
- Some adhesives are recommended for specific substrates or fabric types
- Films can be hot peel or cold peel
- Typical transfer done using standard heat-press (often used for DTG)
- Transfer temperature usually from 100°C-140°C
- Transfer time from 5-15s

Color & Comfort

SunChemical®

a member of the DIC group

Color & Comfort