

# DTG and DTFilm comparison guide

Discover the important similarities and differences between DTG and DTFilm printing and learn why a hybrid solution offers the best of both worlds.

## Introduction

Direct-to-Garment (DTG) and Direct-to-Film (DTFilm) printing are suitable for on-demand production of fine detailed t-shirts, hoodies, tote bags and more. Both methods offer a short run alternative to screen-printing and a softer handle than Heat Transfer Vinyl (HTV). However, there are clear differences between DTG prints and DTFilm prints that extend beyond the separate printing equipment and required processes.

## What is DTG printing?

Direct-to-Garment printing is a method where ink is printed directly onto the garment, often after applying a pre-treatment. Once dried using a heat press or tunnel, this results in high-quality, full-colour prints. Large sized prints will benefit from DTG, due to the soft hand feel and breathability when compared to other printing technology. However, DTG printing is best suited for cotton, and other natural fabrics, as they absorb the ink and have the highest durability.

## What is DTFilm printing?

Direct-to-film printing prints the ink directly onto a film, that then has an adhesive powder applied. The powder must be heat cured, resulting in a transfer that is applied by a heat press. DTFilm prints have excellent colour accuracy, fine detail reproduction and durability, but the raised hand feel limits the process to smaller, placement type designs. Benefits of DTFilm include the ability to print on dark and light garments of various material types like polyester, cotton, and nylon. It can also be a very efficient way to produce batches of small designs, by nesting and filling an entire sheet.

## What's the difference between DTG/DTFilm and Heat Transfer Vinyl (HTV)?

Unlike Heat Transfer Vinyl (HTV), neither the DTG or DTFilm require 'weeding', which means both of these printing methods save a lot of post-print time compared to HTV.

Both methods also result in significantly less waste than HTV, with its carrier film and unused vinyl. DTFilm has only a carrier film and DTG produces no waste at all.

In terms of hand feel of the printed garments, DTG is soft and blends in with the garment texture, and DTFilm is thinner than HTV.



## DTG v DTFilm – the differences at a glance

	Direct-to-Garment	Direct-to-Film
<b>Pre-treatment process</b>	A pre-treatment is applied to the garment to help the ink bond with the fabric.	No pre-treatment needed.
<b>Print process</b>	The design is printed directly onto the garment.	The design is printed onto a digital transfer film.
<b>Additional process</b>	None.	The printed film is coated with an adhesive powder and cured with a heat press or oven.
<b>Curing process</b>	The design must be dried by heat, either using a heat press or tunnel.	The design is transferred onto the fabric using a heat press.
<b>Print quality and durability</b>	Soft hand feel, highly breathable, machine washable up to 40c. High quality print is dependent on a high quality garment.	Raised hand feel, not breathable, machine washable up to 60c (depending on powder). High quality print can be achieved on a lower quality garment.
<b>Print complexity</b>	Suitable for graphics, designs and logos, at any size. Print photographs onto t-shirts without impacting breathability. Produce gradients and fade to no colour effectively.	Suitable for smaller graphics and logos, due to lack of breathability. Not suitable for block designs, like photographs as the transfer becomes heavy. Gradients cannot be produced as the powder requires solid white.
<b>Colour vibrancy</b>	White garments are printed in CMYK, Dark garments are printed with a white under base. Colours are true to the design, but vividness can be improved by the Vivid colour setting.	Every design is printed CMYK with a white under base, regardless of garment colour or fabric type. Colours are true to the design but can appear brighter due to the stronger white under base.
<b>Fabric suitability</b>	Print surface must be flat and positioned on the platen. Suitable for cotton and cotton rich garments.	Transfers can be applied to various fabrics including polyester, cotton, and other synthetic blends. Can be applied onto non-flat items like bags and hats, or items too small for a DTG platen.
<b>Quantity</b>	This technology is perfect for small to large orders. The process is simple and can become a production line of pre-treatment and printing.	This technology is perfect for small to large orders. The best process is to produce transfers first and apply heat afterwards.

## Introducing our new all-in-one DTG and DTFilm hybrid printer.

The Epson SureColor F2200 is built to deliver exceptional DTG and DTFilm prints for every type of business. Fast, flexible, and highly functional, our latest addition to the SC-F series is the perfect all-in-one hybrid solution for any start-up or medium-volume business, offering reliability, efficiency, and cost savings across the board.

As a total solutions provider, each element of the SC-F2200 has been designed and created by Epson. From the printhead to the ink itself, everything works in harmony to deliver the best possible performance – enabling you to produce high-quality printed T-shirts, sweaters, hoodies, bags, and other types of items with ease.

Using the latest advancements in DTG and DTFilm technology, the all-in-one hybrid SC-F2200 brings together the best of both worlds to help you capitalise on every opportunity.

Switching from DTG and DTFilm couldn't be easier. Just click one button in the bundled GC2 software to select the mode and put a different substrate into the platen. DTG printing requires a simple pre-treatment, and pre and post heat press. DTGFilm requires a powder application and heat curing.

