

## GARMENT VARIATIONS & PRE-TREATMENT TECHNIQUES

### Overview

You may have noticed some of the differences that seem to happen when you use a different garment with your normal pre-treatment and printing procedure on your DTG printer why do the printing results look so different? – the process you used was the same process you would normally use, so what's changed?

Generally, when printing onto white garments using only coloured inks (or in some cases, you may be printing onto a light coloured garment using coloured inks) you will not need to use pre treatment. If however, you found that you had to use a specific garment, and you found that there were wash fastness issues with the garment, then using the pre-treatment would help in that case. In 99% of cases though, you would only use the pre treatment if you were applying white ink to your garment. A good coating of pretreatment gives a key for the white ink to adhere to on top of the garment surface. The better the pre-treatment coating, the better the whiteness of the white ink and remember that the whiteness of the white ink also impacts on how bright the colours will look as well.

### The different brands of garments

The reason why your printing result is different is that to a varying extent, every garment is slightly different. Different weights of garment material, different weaves of fabric and the different 'feel' of the garment (some feel soft and smooth, other garments will feel rough and heavy by comparison) and different ways of treating the garment by the manufacturer all combine to give a different surface to print onto what needs to change is the process used to print to the garment, and this usually centres around the pre-treating of the garment.

### Some information about garments in general

Usually before applying pre-treatment it is advisable to heatpress the garment for about 10 seconds at your normal curing temperature (usually 170 degrees centigrade). This does two things firstly, it removes a lot of the moisture that is held within the garment garments that are kept in cold and/or slightly damp stores in cardboard storage boxes will retain a surprising amount of moisture within them. Secondly, it presses the surface of the garment flat, removing creases and crucially flattening the fibres of the garment down to give a nice flat surface on which to apply pretreatment. During the pressing, spraying and curing of garments you will hear about two types of 'top sheet' (used to put over the garment surface to act as a barrier between the garment and the hot heat press surface) – a Teflon sheet and a Baking Parchment sheet (this is very specifically brown Baking Parchment, not greaseproof or tracing paper). The Teflon sheet is generally used for the first pressing of the shirt to remove moisture etc, and can also be used to achieve a very glossy and shiny 'rubberised' finish to the printed garment however, it will generally also give a shiny finish to the excess pre-treatment on the shirt and make it quite visible. Baking Parchment gives a more matt finish and does not show up the excess pre treatment as much. As a guide, I would use the following top sheets at these times:

10 second press of garment to remove creases and moisture Teflon

20-30 second press after application of pre-treatment Baking Parchment

1 - 2 Minute curing of the final printed garment Baking Parchment(or Teflon, depending on preference)

Please note that a Baking Parchment sheet will only be good for approximately 10 uses, whereupon it will have too many creases in it and will need to be replaced. However, the Baking Parchment used can be a cheap product from a supermarket and will not cost much at all. The Teflon sheet will not suffer from this if it is looked after and is not subject to lots of bending and creasing.

## Pre-treatment Variations

### 1. Pre-treatment spraying levels

You will generally find that the pretreatment of garments can be divided into two groups garments that require one application of pre-treatment and garments that require two applications.

#### 1A Garments that require one pre-treatment application

These garments vary greatly, from garments that will require only one pass of pre-treatment (almost what you would refer to as a 'dust coat', i.e. – one light coating over the surface of the garment) to garments that will require a heavier coating, and may require you to apply the pre treatment by going over it three or four times, until you can quite clearly see that the pre treatment coating is sitting up on top of the garment surface in a silvery white wet coating.

Once this is done, transfer the garment to the heat press and press for 10 seconds with a baking parchment top sheet.

#### 1B Garments that require two pretreatment applications

If step 1A does not produce a surface on which to print a good white ink you may need to repeat the process. The reason why it may not give a good printing surface is that the weave of the garment may be too open, and the pre-treatment is either sinking in or soaking through instead of staying on the surface of the garment. By repeating the pre treatment application, you build up a 'skin' of pre-treatment that should give an acceptable surface on which to print the white ink.

You may need to experiment slightly according to the brands of garments you use and also the type of applicator you use to apply the pre treatment, but these methods will give good and repeatable results once you have a feel for the process