

The guide to better printing

This guide explains how to achieve the very best results when using our trutex papers for textile decoration.

HOW TO TRANSFER PRINT

Screen printing

Inks are typically printed one by one onto the paper using a vacuum bed screen printing machine. Inks are force dried using heat and when all the colours have been printed they can be transferred under a heat press, onto the garment.

The production of plastisol transfers uses the two-stage curing process of the inks

- At 90° to 120° C, plastisol inks are dry to the touch, enabling the ink to be dried on the paper.
- They are then transferred at a temperature of 130° to 150° C, where they fully cure and develop wash resistance properties.

The process

1. *To avoid paper shrinkage and registration problems, pre-shrink the paper before screen printing, by passing through a dryer, for 20 to 25 seconds at between 140° and 180° C.*
2. *If there is any delay during printing after pre shrinking, store the paper in a hot box at approximately 32° C. This prevents moisture, which could lead to registration problems.*
3. *Print each colour in reverse.*
 - Use an infra-red or convection oven at between 120° and 140°, for 20 to 25 seconds.
 - The mesh count is typically between 21 and 43T depending on the required result.
 - Dry each colour before the next colour is added.
 - If the printed colour is too thin, it may result in poor application later.
 - If the ink is still sticky after drying, increase the dryer temperature.
 - Printed colours should only be butt-registered, as overlapping colours will mix on transfer.

4. *Transfer with a heat press, typically set at 180° to 190° C.*

- Warm the base platen before beginning to transfer, to avoid application problems with the first few transfers.
- Place the garment on the non-heated platen of the heat-press with the transfer on top, print side down.
- Close the press and leave for 10 to 15 seconds.
- Open the press, remove the garment and peel the backing paper away whilst still warm.

Offset litho printing

Colours are printed onto the paper by using a 4 colour offset lithography process. The colours dry by oxidation and require a screen printed adhesive.

The adhesive is like a white plastisol backing ink which is force dried using heat. The completed design is transferred by heat press to the garment.

The process

1. *Offset lithography print each colour in reverse, using textile inks which dry by oxidation while stacked.*
2. *12 – 48 hours after printing the colours screen print the adhesive.*
3. *Screen-print using a mesh count of typically 21 to 43T.*
 - Print a plastisol backing white over the top of the colours.
 - Dry the backing at 120° to 140° for 20 to 25 seconds, using an infra-red or convection oven.
 - If the ink is still sticky after drying, increase the dryer temperature.
 - Print the backing white within two days of printing the litho inks. This gives a better release performance and improved wash resistance.
4. *When the whole image is printed, the print is ready for transfer.*
 - Use a heat press, typically between 180° and 190° C.
 - Warm the base platen before beginning to transfer. This prevents application problems with the first few transfers.
 - Place the garment on the non-heated platen of the heat-press with the transfer on top, print side down.
 - Close the press and leave for between 10 and 15 seconds.
 - Open the press, remove the garment and peel the backing paper away.
 - Allow to cool for several seconds before the backing paper is peeled away.

Using powdered adhesives

Powdered adhesives are used to improve the adhesion of any transfer to a garment, especially those garments made from synthetic fibres. Improved adhesion results in better washability of the transfer.

The process

1. *Sprinkle the powdered adhesive onto the wet ink.*
2. *Shake off the excess powder so that none is left on none image areas.*
3. *Heat cure the ink as normal.*
4. *Transfer to the garment in the normal way.*

Further Information

We have guides which give you everything you need to know about our trutexile range of textile transfer papers:

Texitran CP

Texitran HS

Texitran ECO

Texitran DS

We have also published two more simple leaflets on getting the most from our coated papers;

- The guide to better printing – how to transfer print effectively.
- The guide to inks, additives and adhesives – ensuring you have the right combination for the paper chosen.

If you would like a copy any of these, we will post or e-mail them straight to you.

Getting in touch

We look forward to hearing from you!

Tullis Russell Coaters

UK:

Church Street, Bollington, Macclesfield, Cheshire SK10 5QF UK

Phone +44 (0)1625 573051 Fax +44 (0)1625 572085
enquiries@trcoaters.co.uk www.trcoaters.co.uk

Korea:

5Ba 802, Shihwa Industrial Complex, 689-1, Sung Gok DongAnsan-Si,
Kyunggi-Do; Republic of Korea

Phone +82 31 499 1151 Fax +82 31 499 1153

USA:

140 Sherman Street, Fairfield, CT 06824 USA

Phone +1 (203) 256 9522 Fax +1 (203) 256 8306
info@tullisrussellusa.com www.tullisrussellusa.com

China:

Plainvim Industrial Park, 2nd Floor, Building I,
No.4 ZhenAnDong Road, Chang'an Town. Dongguan City.
Guangdong Province. 523851 PR. China

Phone +86 (0) 769 8166 1808 Fax +86 (0) 769 8166 1898
enquiries@trcoaters.cn www.trcoaters.cn



tru service