MAGNATRANS®

WATER-BASED TRANSFERS

TECHNICAL GUIDE

MAGNACOLOURS®
IMAGINATION INK™

MAGNATRANS® OVERVIEW

MagnaTrans is a range of water-based heat transfer inks, pigments, additives, and adhesives, designed as a 2-pack system to produce single and multi-coloured transfers on release coated film.

MagnaTrans inks offer excellent elasticity, soft handle, high wash durability, exceptional screen performance and runnability. The system can even be used on the most demanding high stretch synthetic fabrics such as elastane (when used in conjunction with MagnaTrans Migration Blocker).

The range is fully compatible with digitally printed transfer systems including HP Indigo and Ricoh digital films.

THE MAGNATRANS RANGE

The MagnaTrans Heat Transfer Range is a two-pack system and consists of the following products:

PRODUCT	DESCRIPTION
MAGNATRANS WHITE	High opacity, superior stretch, read-to-use white ink
MAGNATRANS NEUTRAL	Translucent, high stretch, ready-to-use clear ink
MAGNATRANS BLACK	High performance, superior stretch, ready-to-use black ink
MAGNATRANS MIGRATION BLOCKER	Dye migration blocker to prevent bleeding where dye migration is a severe problem
MAGNATRANS FR	Flame-retardant additive
MAGNATRANS ADHESIVE 60	Water-based screen printable adhesive offering superb stretch, elasticity, and clarity for a wide range of apparel items including sportswear, workwear, and promotional garments. Meets all Domestic 60°C (140°F) wash requirements.
MAGNATRANS PU POWDER 60	Polyurethane melt powder for use with scatter application, offering strong adhesion and elasticity. Washable up to 60°C (140°F).
MAGNATRANS FIXER	Fixer to reduce the curing times and temperature of the MagnaTrans range to 120°C (248°F) and above. Add at 3%.
MAGNATRANS FIXER LT*	Fixer to reduce the curing times and temperature of the MagnaTrans range to 80°C (176°F) and above. Add at 2%

*Suitable when lower drying temperatures are required due to substrate demands

USAGE GUIDELINES

- MagnaTrans inks are supplied in a 2-pack system consisting of separate base inks and fixing agents (Fixer or Fixer LT). Ensure that inks are mixed thoroughly prior to usage as settling may occur during transportation and storage.
- The MagnaTrans range is suitable for use on manual, semi-automatic, or fully automatic machine types.
- The optimum temperature of the printing area is 18-25°C (64-77°F) with humidity at 50-60%rh.
- For the 2-pack system to function as designed, it is necessary to add 3% MagnaTrans Fixer or 2% MagnaTrans Fixer LT prior to printing.
- Allow 24 hours after printing before applying transfers to the garment.
- A minimum of 72 hours after printing is required to ensure optimum resistances and full wash resistances.

APPLICATION

Printing is best undertaken using 34 – 100T (86-250) screen meshes, with a 70-75° Shore Square Edge Squeegee.

Use a combination of MagnaTrans White and Neutral pigmented with Eco-Pigments to build up the transfer, ensuring the ink is fully dried in between each layer.

SPECIFICATION

FABRIC TYPES
Cotton, Polyester, Poly/Cotton blends

MESH
34 - 100T (86-250)

SQUEEGEE
70-75° shore, square edge

CURE TEMP
60-90 seconds at 140°C (284°F)

PIGMENT LOADING
Up to 12% Eco-Pigments

ADDITIVES
Retardant Gel Conc 5% (optional)

STORAGE
In a cool place, properly closed >5°C <25°C

HEALTH & SAFETY
MSDS available on request

CLEAN UP
Wash screens with water and mild detergent

DRYING

When using MagnaTrans Fixer, the printed sheet should be dried in between layers at 140°C (284°F) for 60-90 seconds. Alternatively, if using MagnaTrans Fixer LT, prints can be dried in between layers at 90°C (194°F) for 60-90 seconds.

When producing transfers for polyester fabrics where dye migration is an issue, we recommend using MagnaTrans Migration Blocker with 3% Fixer as the final layer of ink before adhesive is applied.

Once you are happy with the transfer build-up, apply MagnaTrans Transfer Adhesive as the final backing adhesive. Alternatively, apply MagnaTrans PU Powder 60 to the final wet layer and dry accordingly.

The finished transfer can be applied to the required substrate on a heat press at 165°C (329°F) for 12 seconds, 4-6 Bar pressure, or as per adhesive instructions. Once pressed, allow it to cool and then remove the transfer film from the print.

CONSIDERATIONS

SCREEN EMULSION

When preparing your screens for exposure, use a screen emulsion suitable for printing with water-based inks. MagnaPrint Screen Emulsion is ideal for transfer printing. Ensure your screens are fully hardened by following post-exposure procedures.

INK MANAGEMENT

If necessary you can occasionally spray a mist of distilled water onto your screens to ensure that the inks do not dry or clog up open mesh areas of the screens. MagnaPrint Retardant Conc can be added to MagnaTrans inks to assist in preventing screen blockages, however, this may increase your curing times.

STABILISING FILM

MagnaTrans films have been stabilised during manufacture. However, due to the nature of the material, we recommend 'pre-curing' the film before printing for one minute at 140°C – 145°C (284°F - 295°F). This will prevent shrinkage during production when screen printing multi-colour designs.

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AVIENT™

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