IMAGE TRANSFER SPORTS EQUIPMENT



PRODUCT INFO

TRTRANSFER

Specialist transfer paper for the decoration of high performance sports equipment. Our decal papers ensure that everything from snowboards and bindings to golf clubs and tennis rackets remain light and aerodynamic, combining high levels of performance with superior print quality.

Features

- Excellent stiffness and dimensional stability
- Ideal for use on substrates such as metal, wood and plastic

Benefits

- Ability to decorate on curved surfaces with no hard edges
- Enables detailed, lightweight and durable decoration

Products Product Name	Smoothness	Dimensional Stability	Backcoated	Metallic Inks	Base Colour	Application method	Format	Print Options
tru cal® gold	•••	• •	No	• • •	White	Waterslide	Sheets	Screen
tru cal® plus	• •	••	No	••	White Blue	Waterslide	Sheets	Screen Litho Offset
tru cal® advantage	•	••	No	• •	White Blue	Waterslide	Sheets	Screen Litho Offset
sportcal (china only)	•	••	No	• •	White Blue	Waterslide	Sheets	Screen Litho Offset



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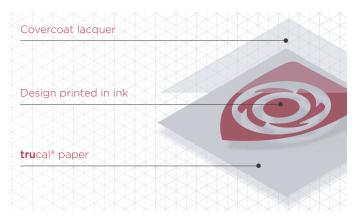
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HOW TO GUIDE SPORTS EQUIPMENT

1. Printing using traditional waterslide techniques

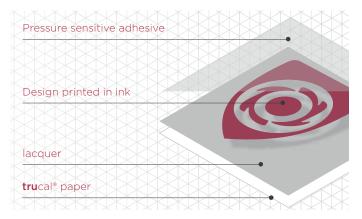


- a. Ink is printed by screen onto the gummed coated side of the paper. Ink recommendations can be made by Tullis Russell or your ink supplier will be able to advise.
- **b.** A lacquer covercoat made of resin, plasticise and solvent, is then screen printed, covering the whole printed design. This allows the entire design to be removed from the decal paper when soaked in water.

Applying sportcal using traditional waterslide techniques

- Decals are best released in clean, warm water.
- Sheets should be soaked individually so that water can fully penetrate the paper
- The wetted sheets can then be stacked on top of each other to await application.
- It is not recommended to leave the printed sheets in water for too long, as the decals will float off. This will hinder application.
- Once the decal is mobile on the paper it can be transferred from the paper onto the sports equipment. Any traces of air or water between the decal and sports equipment must be removed. This is best performed with a rubber squeegee.
- After application of the decal to the sports equipment, allow to dry for several hours. The residual water will evaporate.
- To improve the permanence of the applied design, the whole sports equipment can be over sprayed with a suitable lacquer, sealing the decal to the sports equipment.

2. Printing pressure sensitive decals



 Offset litho or screen print lacquer coat onto the coated side of the paper. This forms a base for printing the design. It also influences the surface finish you want to achieve and holds the colours together, in register, as they are transferred to the item being decorated.

Typically a screen mesh of 100T to 120T is used for the lacquer if screen printed.

Some ink systems may not require this lacquer coat. Tullis Russell or your ink supplier will be able to advise.

- **b.** Print the design, in reverse, on top of the lacquer.
- **c**. Overprint the whole design with a suitable screen printed pressure sensitive adhesive.

d. Remember that the adhesive is pressure sensitive and will always be tacky. Before the sheets can be stacked or cut down into smaller sizes the whole sheet must be protected with a suitable release liner. The adhesive suppliers will recommend when best to apply the release liner into the sheet, as different adhesives require different drying times.

Applying pressure sensitive decals

- The individual design is cut from the sheet.
- The release liner is peeled away.
- The design is then placed face down to sports equipment being decorated with gentle pressure.
- The paper is moistened on the back, with water and after approximately 30 seconds it will be possible to remove it without damaging the design. The decoration will now be face up, as required.
- A design can stay in place for several days. It can be made more permanent by overlacquing the sports equipment item with a suitable spray lacquer.



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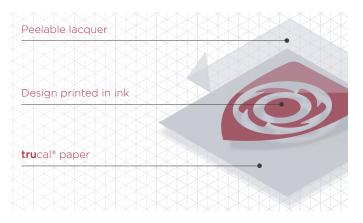
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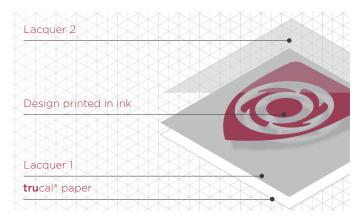
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3. Printing using a peelable lacquer system



- a. The inks are printed onto the gummed surface of the paper by screen printing. Typically the ink is printed through a screen mesh of 100T to 120T. Ink recommendations can be made by Tullis Russell or your ink supplier will be able to advise.
- **b**. Then overprint the design, with a screen printed peelable lacquer (covercoat). Normally printed with a 34T or 24T screen mesh.

4. Printing using a solvent release technique



a. Offset litho or screen print lacquer coat onto the coated side of the paper. This forms a base for printing the design. It also influences the surface finish you want to achieve and holds the colours together, in register, as they are transferred to the item being decorated.

Typically a screen mesh of 100T to 120T is used for the lacquer if screen printed.

Some ink systems may not require this lacquer coat. Tullis Russell or your ink supplier will be able to advise.

b. Print the design, in reverse, on top of the lacquer 1 layer.

Applying trucal® paper using a peelable lacquer system

- Decals are best released in clean, warm water.
- Sheets should be soaked individually so that water can fully penetrate the paper
- The wetted sheets can then be stacked on top of each other to await application.
- It is not recommended to leave the printed sheets in water for too long, as the decals will float off. This will hinder application.
- Once the decal is mobile on the paper it can be transferred from the paper onto the sports equipment. Any traces of air or water between the decal and sports equipment must be removed. This is best performed with a rubber squeegee.
- After application of the decal to the sports equipment, allow to dry for several hours. The residual water will evaporate.
- Then the peelable lacquer (covercoat) can be peeled away leaving just the inks on the sports equipment.
- To improve the permanence of the applied design, the whole sports equipment can be over sprayed with a suitable lacquer, sealing the decal to the sports equipment.
- c. Overprint the whole design with a second lacquer screen printed layer i.e lacquer 2. Effectively forming a sandwich of lacquer between the printed design.

Typically the lacquer is printed through a screen mesh of 100T to 120T.

Applying pressure sensitive decals

- Cut out the individual design from the large sheet.
- Immerse the decal, cut design, in a solvent plus water mix until the paper has absorbed the mix. This takes approximately 60 seconds.
- The solvent used reacts with the lacquer layer of the decal making it tacky. Solvent typically used is Methyl or Butyl Cellosolve. Normally at 1 part solvent to 14 parts water.
- The design is then placed face down to the sports item with gentle pressure.
- Remove any air bubbles and traces of water with a squeegee. This presses the tacky layer firmly to the sports equipment being decorated.
- The backing paper can then be peeled away leaving the design fixed to the aports equipment.
- Wipe clean and allow to dry for several hours.
- A design can be made more permanent, if required, by over lacquered the decorated item with a suitable spray lacquer.



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Getting the best from trucal® decal papers

Storage

- Store unopened packets in ambient conditions.
- We recommend that unopened packets of the paper are stored in the print room for four days prior to opening and printing. This will acclimatise the paper to the print room environment.
- Do not open the packets until printing is about to commence.
- For best results, reseal any part used packets before storage to prevent wavy edges.

Preparing for Printing

- The paper can be provided, at different intersheet humidities to suit the printing conditions of all our customers.
- If the intersheet humidity of the paper matches the ambient relative humidity of the print room, there should be no contraction or expansion of the paper sheets.
- Should your print room conditions be outside the intersheet humidity of the paper, the paper can still be printed acceptably. It is recommended that for precise registration printing, that the paper should be preconditioned to the print room before printing.

Drying

- It is recommended that ambient conditions are used to dry the paper.
- Any form of forced drying without adding moisture will lead to a drop in humidity and a moisture loss from the paper. This can cause shrinking of the sheets resulting in miss register.

Technical

• Our technical experts will provide you advice on inks and covercoats, which are used with **tru**cal® paper to ensure you achieve the best printing and application results.

We look forward to hearing from you!



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