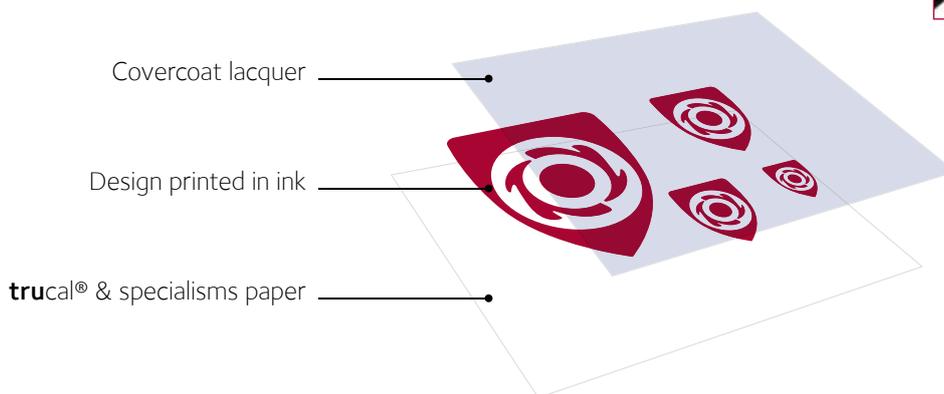


# For the decoration of sports equipment

## 1. Printing using traditional waterslide techniques



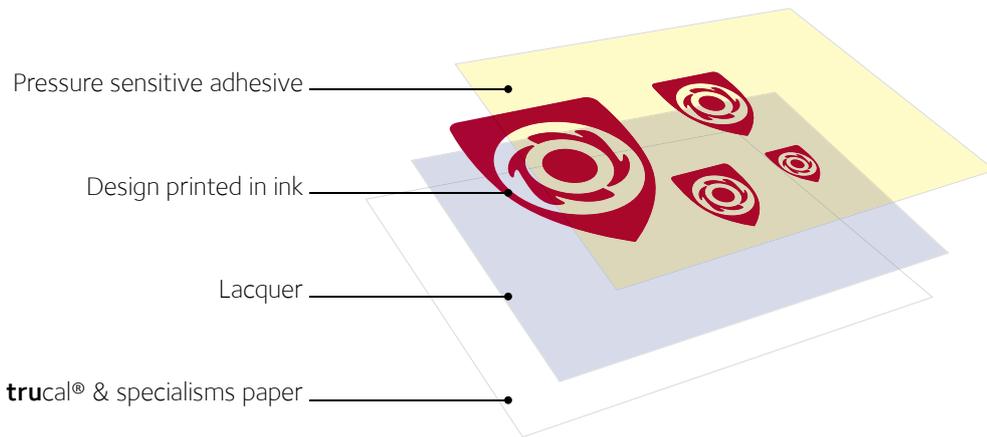
- a. Ink is printed by screen onto the gummed coated side of the paper. Ink recommendations can be made by **Technical** from Tullis Russell Coaters or your ink supplier will be able to advise.
- b. A lacquer covercoat made of resin, plasticiser and solvent, is then screen printed, covering the whole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

Tullis Russell Coaters **truca<sup>l</sup>® & specialisms** papers are also ideal for printing by off-set litho.

### 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



- 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, **Technical** from Tullis Russell Coaters 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.

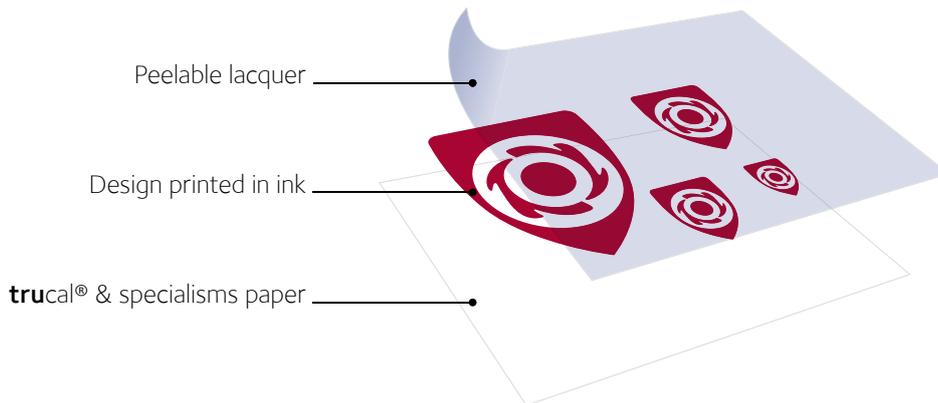
Typically the adhesive is printed through a screen mesh of 100T to 120T.

- 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 to the sheet, as different adhesives require different drying times.

### Applying pressure sensitive decals

- The individual design is cut out 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.

### 3. Printing using a peelable lacquer system

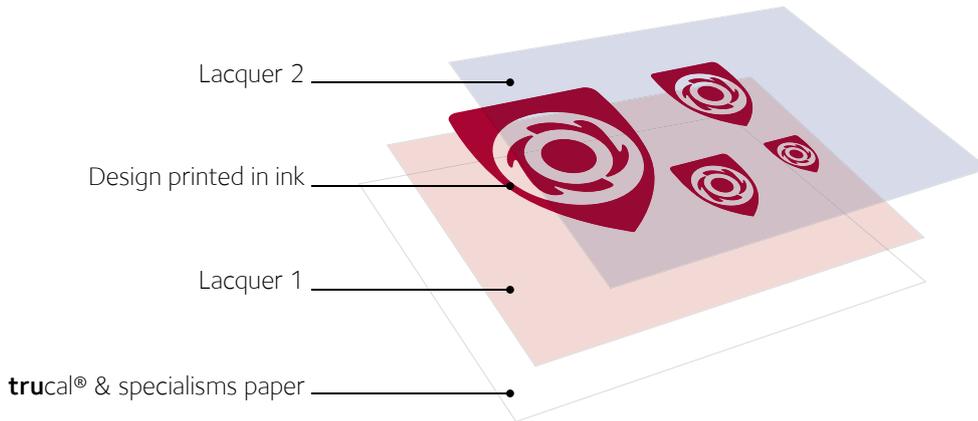


- a. The inks are printed onto the gummed surface of the paper by screen printing. Typically the ink is printed through a screen mesh of 100T to 120T. Ink recommendations can be made by **Technical** from Tullis Russell Coaters or your ink supplier will be able to advise.
- b. Then overprint the design,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

#### Applying **trucal® & specialisms** 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 and 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.

## 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. **Technical** from Tullis Russell Coaters or your ink supplier will be able to advise.

- b. Print the design, in reverse, on top of the lacquer 1 layer.
- 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 **trucal® & specialisms** paper using a solvent release technique

- 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 item being decorated.
- The backing paper can then be peeled away leaving the design fixed to the sports equipment.
- Wipe clean and allow to dry for several hours.
- A design can be made more permanent, if required, by over lacquering the decorated item with a suitable spray lacquer.

# Getting the best from **truca**<sup>®</sup> & specialisms decal papers

## Storage

- Store unopened packets in ambient conditions.
- We recommend that unopened packets of the paper are stored in the pressroom for four days prior to opening and printing. This will acclimatise the paper to the press 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.

## Preparation 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 press 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. Sheets should be passed through the wicket driers or by placing in a drying rack for 1–2 hours within the print room.

## 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 **truca**<sup>®</sup> & specialisms paper to ensure you achieve the best printing and application results.

**We look forward to hearing from you!**

