





PRODUCT INFO

Specifically designed for the decoration of bicycle frames and components, this specialist decal paper is used by key bicycle brand owners, demanding quality decoration results. Blue tinted versions are available when white is incorporated into the design, allowing the exact detail to be easily seen.

Features

- Modified release for bicycle decoration
- Range of decal release speeds available for different manufacturers' assembly line requirements
- Ideal for use on metal and painted metal

Benefits

- Permanent decoration can be achieved by over lacquering
- Ability to decorate on curved surfaces with no hard edges
- Excellent for precise small area and large all over frame decoration

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Product Name	Smoothness	Dimensional Stability	Backcoated	Metallic Inks	Base Colour	Application method	Format	Print Options
Bicy cal®	• •	••	No	• •	White Blue	Waterslide	Sheets	Screen Litho Offset

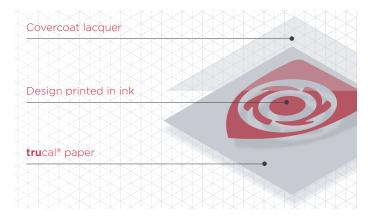


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1. Printing using traditional waterslide techniques

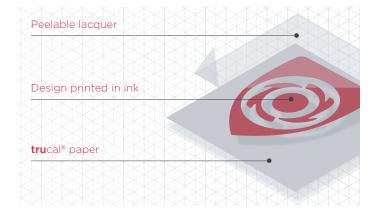


- a. This ink is printed by screen onto the gum coated side of the paper. Ink recommendations can be made by Tullis Russell or your ink supplier will be able to advise.
- b. A lacquer covercoat consisting of resin, plasticiser and solvent, is screen printed, covering the whole printed design. This allows the whole decal to be removed from the paper when soaked in water without the image breaking up.

Applying trucal® 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 bicycle frame or component. Any traces of air or water between the decal and bicycle frame or component must be removed. This is best performed with a rubber squeegee.
- After application of the decal to the bicycle frame or component allow to dry for several hours. The residual water will evaporate.
- To improve the permanence of the applied design, the bicycle frame or component can be over sprayed with a suitable lacquer fixing the decoration.

2. 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 from Tullis Russell or your ink supplier will be able to advise.
- b. Then overprint print the design, with a screen printed peelable lacquer (covercoat). Normally printed with a 34T or 24 T screen mesh.

Applying trucal® 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 bicycle frame or component. Any traces of air or water between the decal and bicycle frame or component must be removed. This is best performed with a rubber squeegee.
- After application of the decal to the bicycle frame or component 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 bicycle frame or component.
- To improve the permanence of the applied design, the bicycle frame or component can be over sprayed with a suitable lacquer fixing the decoration.

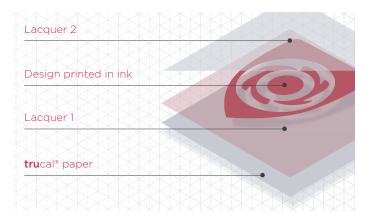


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HOW TO GUIDE BICYCLE

3. 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 bicycle frame and component 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.

c. Overprint the whole design with a second lacquer screen printed layer i.e lacquer 2. This will form sandwich of lacquer between the printed design.

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

Applying trucal® 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 bicycle frame and components with gentle pressure.
- Remove any air bubbles and traces of water with a squeegee. This presses the tacky layer firmly to bicycle frame and component being decorated.
- The backing paper can then be peeled away leaving the design fixed to the bicycle frame or component.
- Wipe clean and allow to dry for several hours.
- A design can be made more permanent, if required, by over lacquering the bicycle frame or component with a suitable spray lacquer.

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
- For best results, reseal any part used packets before storage to prevent wavy edges.

Preparing for Printing

- The paper can be provided, at different innersheet humidities to suit the printing conditions of all our customers.
- If the innersheet 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 innersheet 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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