



## TEXISCREEN PERMATONE® COLOUR MATCHING SYSTEM

The Taxiscreen **PERMATONE**® colour matching system is a water-based 100% solvent free textile ink, designed for direct wet-on-wet printing on a wide range of natural and synthetic fabrics. Taxiscreen **PERMATONE**® inks are transparent and are suitable for direct use on white and other light-toned fabrics. When printing on black or other dark-toned fabrics, use **PERMASET SUPERCOVER® First Down White** as an under-base. The **First Down White** under-base also improves adhesion and rub resistance of the top layer.

Once heat cured, the unique formula of Taxiscreen **PERMATONE**® inks offers an unsurpassed balance of colour brightness, softness and durability to wash, rub and dry clean resistance, eliminating the need for additives.

Taxiscreen **PERMATONE**® inks exhibit excellent screen stability allowing exceptional screen open time.

The Taxiscreen **PERMATONE**® colour matching system comes with a mixing guide that can be used to produce simulations of 1869 PANTONE® colours. As a water-based product, equipment is easily cleaned with water.

After heat fixing, prints exhibit excellent wash, rub and dry clean resistance.

**Important: Stir well before use.**

**Compatibility with all substrates should be checked before commencing a production run.**

### MAIN CHARACTERISTICS

<b>Mesh Range</b>	Monofilament. Polyester 43-120T (110-305 tpi) depending on application for <b>PERMATONE</b> ® Colours. Nylon mesh is NOT recommended. It is water sensitive and screen tensions can be affected with water-based inks. Polyester mesh is recommended.
<b>Stencil Type</b>	Emulsions must be water resistant, fully dried and fully cured. Dual cure direct emulsions such as KIWO POLYCOL® MULTI-TEX/VERSA-TEX™ or Fujifilm Dirasol® 916 or ULANO® 925WR or Chromaline® CP-TEX™ or MacDermid Autotype PLUS 6000 or Murakami TXR®/T9 are recommended for long print runs and maximum print resolution.  Care should be taken to ensure that stencils are properly dried and exposed, as under-exposure will render most direct emulsions sensitive to premature breakdown with water-based inks.
<b>Coverage</b>	15-21m <sup>2</sup> /L with 62T mesh. 611-856 square feet per US gallon with 155 tpi mesh.





<b>Fabrics</b>	Cotton, linen, hemp, silk, cotton/polyester blends, polyester and most synthetic fabrics. The fastness to wash and dry cleaning on wool may be diminished.
<b>Squeegee</b>	Sharp square urethane squeegees from 60 to 75 Shore hardness are recommended for best image reproduction.
<b>Printing</b>	<p>Ensure that there is adequate ink on the screen for an even print. Between prints, ensure that ink is flooded over the entire image area to prevent drying-in. Ensure that screen emulsions and blockout are water-resistant and fully cured.</p> <p><b>IMPORTANT: When printing with PERMATONE® inks, it is essential to flood the image area after lifting the screen following each print stroke. Thin deposits of ink retained in the mesh will be prone to drying in if left unflooded. By flooding straight away, fresh ink wets out these deposits and prevents premature drying in.</b></p>
<b>Open Time</b>	If drying in the screen too quickly, add 1-2% <b>PERMASET® Print Retarder</b>
<b>Drying</b>	<p>For optimum wash and colour fastness, prints should be fully heat cured. Whilst the below information is a guide, the curing schedule used should be chosen to suit the heat resistance of the fabric being printed.</p> <p>Care must be taken with IR dryers to ensure that prints are fully cured. When printing on synthetic blends and fabrics, a lower curing temperature and longer drying time is recommended. If your drying conditions fall outside these recommendations, please contact your local representative for technical assistance.</p> <p>The following curing guidelines are recommendations for ink deposit temperatures, not dryer temperatures. This should be checked with temperature strips or IR gun to ensure that appropriate temperatures are achieved.</p> <p style="text-align: center;">2-3 minutes @ 160°C (320°F) 5-6 minutes @ 140°C (285°F) 8-9 minutes @ 120°C (250°F)</p> <p>If using <b>PERMASET® Print Retarder</b> in the ink, note that this will also slow drying in the oven. Ensure that a test wash is completed to confirm that cure regime is adequate.</p>



<p><b>Fastness</b></p>	<p>Light Fastness is very good-excellent. Most colours achieve a rating of 8/8 on the Blue Wool Scale (BWS), but all Colours except Glow Colours rate not less than 6/8. Figures for the Glow range are substantially lower, but not quantified at this time.</p> <p>Colour Matches: Note that high temperatures combined with strong detergents can cause colour changes in some colour matches. It is therefore imperative that all formulations are checked for acceptable wash fastness properties prior to production.</p>
<p><b>Thinning &amp; Wash-up</b></p>	<p>If necessary, thin with up to 1-5% water. Wash screens out whilst still wet with water and detergent. Dried in ink may be washed out with conventional or eco-friendly screenwash.</p>
<p><b>Applications</b></p>	<p>T-Shirts, flags, banners, sports and fashion wear. Swimwear, upholstery and window furnishings. Yardage, cushions, table and bed linen, tea towels and tote bags.</p>
<p><b>Properties</b></p>	<p>Organic approved textile inks for colour matching. Matt finish, solvent free, low odour, intermixable, light-fast, non-bleeding colours. Brilliant transparent shades. Excellent opacity with <b>PERMASET SUPERCOVER®</b> First Down White as an underbase. Soft handle. Excellent wash, rub and dry clean resistance once cured. Ironable.</p>
<p><b>Product Resistance</b></p>	<p>After heat curing, prints exhibit excellent resistance to wet and dry rub.</p>
<p><b>Colour Range</b></p>	<p><b>PERMTONE®</b> Colours</p> <ul style="list-style-type: none"> <li>Black</li> <li>White</li> <li>Yellow RS</li> <li>Yellow GS</li> <li>Orange</li> <li>Red YS</li> <li>Red BS</li> <li>Violet</li> <li>Magenta</li> <li>Blue</li> <li>Green</li> <li>Extender</li> </ul> <p><i>Available in 1 L, 4 L and some colours in 15 L</i></p> <p><i>Extender is also available in 200 L pack size (made to order only)</i></p>



<p><b>Ancillary Products</b></p>	<p>Fabrics must be held in place during printing by means of a pressure sensitive adhesive to ensure good definition and registration.</p> <p><b>PERMASET® Table Adhesive</b> is suitable for this purpose. <i>Available in 500 mL, 1 L, 5 L</i></p> <p>Water based inks can be prone to drying in on the screen. To provide longer open time, <b>PERMASET® Print Retarder</b> can be added in very small amounts (1-2%) to slow the drying in process. <i>Available in 500 mL, 1 L, 5 L &amp; 15 L</i></p> <p><b>PERMASET® Fabric Softener</b> is a formulated product based on silicone technology designed for use in textile printing. Addition of <b>PERMASET® Fabric Softener</b> imparts a softer, drier hand feel to textile prints made with products from the <b>PERMATONE®</b> ink range. It will also improve both wet and dry rub fastness. <b>PERMASET® Fabric Softener</b> is beneficial when printing on delicate fabrics where a soft handle in the print is a specific requirement. <i>Available in 500 mL, 1 L, 5 L &amp; 15 L</i></p>
<p><b>Environmental Information</b></p>	<p>The Taxiscreen <b>PERMATONE®</b> range is formulated to be environmentally friendly with enhanced performance characteristics. <b>PERMATONE®</b> inks do not contain ozone depleting chemicals such as CFCs and HCFCs. They are also formulated free of aromatic hydrocarbons. The <b>PERMATONE®</b> range is free of volatile organic solvent (VOC) and does not contain any PVC resin nor phthalate plasticisers. The <b>PERMATONE®</b> range are also free from Lead and other heavy metals.</p> <p>All 12 mixing bases of the <b>PERMATONE®</b> colour matching system and <b>PERMASET SUPERCOVER®</b> First Down White have been granted Approval from the Soil Association in the UK as satisfying the requirements of Global Organic Textile Standard (GOTS) for non-organic chemical inputs for use in organic textile processing.</p> <p>The Taxiscreen <b>PERMATONE®</b> range also passed the Oeko-Tex® Standard 100 Class 1 and is safe to use on underwear, swimwear and even baby clothes (infants under 2 years).</p>





<p><b>Storage</b></p>	<p>Containers should be kept in a cool dark place out of direct sunlight and away from sources of heat. Containers should be tightly closed when not in use. Keep out of reach of children.</p>
<p><b>Suggested Safe Disposal Method</b></p>	<ol style="list-style-type: none"> <li>1. Wipe as much excess ink off the screen as possible, first with a squeegee (into a clean bucket for re-use), then with rags/paper (into bin)</li> <li>2. Hose out the screens in a contained vessel</li> <li>3. Capture the liquid waste and allow to settle</li> <li>4. Strain out solids, dry solids in the sun and dispose of as solid waste.</li> <li>5. Aqueous waste water should be disposed of in sealed containers via a certified waste disposal entity.</li> </ol> <p><b>Excess ink and wastes from the screen should be disposed of in accordance with the regulations of local regulatory authorities.</b></p>

NOTE: The information and recommendations contained in this Technical Data Sheet, as well as technical advice otherwise given by representatives of our business, whether verbally or in writing, are based on our present knowledge and believed to be accurate. However, no guarantee regarding their accuracy is given as we cannot cover or anticipate every possible application of our products and because manufacturing methods, printing stocks and other materials vary. For the same reason, our products are sold without warranty and on condition that users conduct their own tests to satisfy themselves that they will fully meet their particular requirements. Our policy of continuous product improvement might make some of the information contained in this Technical Data Sheet out of date and users are requested to ensure that they follow current recommendations.

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