



With 50 years of manufacturing experience, Colormaker Industries is recognised both by the professional printer and the fine artist as a premium producer of screen printing inks. Our great heritage continues with a complete re-engineering of our paper inks. In keeping with our heritage of industry leading products, we have developed a totally water-based printing product with superior performance that eliminates the use of solvents.

The development of PermaPrint Premium represents a revolution in screen printing inks. By using advanced polymer technology combined with pure pigment colours in a 100% solvent free base, the unique formula of PermaPrint Premium offers an environmentally friendly, easy-to-use ink that provides unsurpassed performance, eliminating the need for additives, together with excellent colour brightness.

Permaprint Premium is a waterbased screen printing ink that is formulated to provide excellent adhesion on a wide range of substrates. It exhibits exceptional water resistance once dried. This makes it a highly versatile multipurpose screen printing ink that is safe for the printer and friendly to the environment.

Permaprint Premium inks are 100% solvent free, so equipment can be easily cleaned with water and solvent fumes are eliminated. The Permaprint Premium AQUATONE Series products are designed for use in a colour management system.

Important: Stir well before use.
Compatibility with all substrates must be checked before commencing a production run.

Main Characteristics

| Drying | Thinning & Wash-up | Mesh Range | Stencil Type | Coverage | Applications | Colour Range |
|--|---|--|---|---|--|--|
| <p>For optimum fastness PermaPrint Premium should be air dried, or may be jet dried at maximum airflow.</p> <p>If drying in the screen too quickly, add 3% Permaset Print Retarder G</p> | <p>If necessary, thin with up to 1-3% water.</p> <p>Wash screens out with water + detergent.</p> <p>Dried in ink may be washed out with Sericol CPS KA or A8 Screenwash</p> | <p>Monofilament. Polyester 32-120T (83-305 tpi) depending on application for standard and process colours. 34-100T (85-255 tpi) for Pearls. Nylon mesh is NOT recommended. It is water sensitive and screen tensions can be affected with waterbased inks. Polyester mesh is recommended</p> | <p>MUST be water resistant, fully dried and cured. Check first!</p> <p>Emulsion: Recommend : KIWO Polyplus SRX or SERICOL Dirasol 916, or ULANO LX-660.</p> | <p>15-21m²/L with 62T mesh.</p> <p>612-857 square feet per gallon with 155 tpi mesh.</p> | <p>High lay-down hand printed wallpaper and art reproduction, through to stickers, posters and backlit displays.</p> | <p>9 Standard Colours plus Standard and Opaque Whites, Black, Extender Clear Gloss, and Matting Agent.</p> <p>Process set (CMY+K), 8 Glow and 4 Pearl colours.</p> |
| <p>Properties Gloss Finish. Solvent-free. Low odour. Intermixable, light fast, non-bleeding colours.</p> | | | | <p>Product Resistance After air dry, prints exhibit very good water resistance.</p> | | |



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SUITABLE SUBSTRATES

Permaprint Premium inks are suited to printing on sealed paper, cardboard, tyvek, polyesters (mylar), polycarbonates (lexan), some coated metals and polystyrene. Care should be taken with some vinyls as plasticizer migration may soften the ink over time. Care should also be taken with some uncoated papers as cockling may occur.

PRINTING

Screen meshes of 32-120T (83-305 tpi) monofilament polyester are suitable for most Permaprint Premium applications. 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.

IMPORTANT: When printing with PermaPrint Premium, 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 dry very fast. By flooding straight away, fresh ink will wet out these deposits and prevent premature drying in.

Mesh: Permaprint Premium is used commercially with mesh counts ranging from 32T metric (83 tpi) for high lay down on hand printed wallpaper and art reproduction through to 120T (305 tpi) on applications such as stickers, posters and backlit displays where maximum detail and transparency is required. General purpose work is best with meshes from 77T (195 tpi) to 100T (255 tpi). Polyester is recommended as nylon is water sensitive and screen tensions can be affected with water-based inks.

Squeegee: Sharp square urethane squeegees from 55 to 75 Shore hardness are recommended for best image reproduction.

Stencil: Water resistant stencils are essential with Permaprint Premium. Dual cure direct emulsions such as KIWO Poly-Plus SRX, ULANO LX-660 or SERICOL Dirasol 916 are recommended for long 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.

Drying: Permaprint Premium inks can be rack or jet-air dried and are also suitable for R.F. or Microwave dryers. Permaprint Premium dries by simple evaporation over 20-30 minutes, depending on ambient temperature and humidity or can be jet dried at 65-75°C (149-167°F) for approximately 30-45 seconds using maximum air flow.

PermaPrint Premium AquaTone Colours

AquaTone Black
AquaTone (Transparent) White
AquaTone Yellow G/S (Primrose)
AquaTone Yellow R/S (Golden Yellow)
AquaTone Orange
AquaTone Red Y/S (Scarlet)
AquaTone Red B/S (Carmine)
AquaTone Magenta
AquaTone Violet
AquaTone Blue
AquaTone Green
AquaTone Print Paste/Extender
Opaque White
Available in 300mL, 1L, 4L and some colours

in 15L containers

PermaPrint Premium Glow Colours

Glow Yellow
Glow Orange
Glow Red
Glow Pink
Glow Magenta
Glow Violet
Glow Blue
Glow Green
Available in 300mL, 1L and 4L only.

PermaPrint Premium Process Colours

Process Black
Process Cyan
Process Magenta
Process Yellow
Available in 300mL, 1L and 4L only.

PermaPrint Premium Pearl Colours

Pearl White
Pearl Silver
Pearl Gold
Pearl Copper
Available in 300mL, 1L and 4L only.

Ancillary Products

Clear
Available in 300mL, 1L and 4L only.
Matting Agent (use @ up to 5%)
Available in 300mL, 1L and 4L only
Permaset Retarder G (use up to 3%)
Available in 500mL, 1L and 4L.

Environmental Information

PermaPrint Premium does not contain ozone depleting chemicals such as CFC's and HCFC's. It is also formulated free of aromatic hydrocarbons. PermaPrint Premium is free of volatile organic solvent and does not contain any PVC resin nor any phthalates plasticiser. PermaPrint Premium is also free from Lead and other

Drying contd

In the case of porous substrates, drying is aided by absorption. Drying rates in all cases will be affected by ink thickness. Testing under print shop conditions on common substrates is recommended before commencing any production print run.

Ensure that adequate ventilation is provided during drying and that cooling is allowed before stacking to prevent blocking problems.

Whilst the information above is a guide, any heating schedule used should be chosen to suit the heat resistance of the substrate being printed. Care must be taken with IR dryers. When printing on synthetic substrates, lower temperatures and longer drying times are recommended. If your drying conditions fall outside these recommendations, please contact your local representative for technical assistance.

Any drying temperature guidelines quoted above are recommendations for ink deposit temperatures, not dryer temperatures. This should be checked with temperature strips to ensure the appropriate temperatures are achieved.

Fastness

Light Fastness is very good-excellent. Most colours achieve a rating of 8/8, but all Aquatone + Process Colours are not less than 6/8. Figures for the Glow range are substantially lower, but not quantified at this time.

Safety and Handling

PermaPrint Premium has been formulated to be free of any toxic chemicals. The range has no flash point, and as such is exempt from Flammable Liquids regulations. Comprehensive information on the safety and handling of products in the PermaPrint Premium range of inks and ancillaries is provided in the appropriate Safety Data Sheets (SDS) which are available on request.

Storage

Containers should be kept in a cool place and tightly closed when not in use.

Suggested Safe Disposal Method

1. Wipe as much excess ink off the screen as possible, first with a squeegee (back to the bucket), then with rags/paper (into bin).
2. Hose out screens in a contained vessel.
3. Capture the liquid waste and allow to settle.
4. Strain out solids, dry solids in the sun and dispose of as solid waste.
5. Aqueous waste water can then be disposed of in sealed containers to a certified waste disposal entity.

Excess ink and wastes from the screen should be disposed of in accordance with the regulations of local regulatory authorities.

VER 1406

The information and recommendations contained in this Technical Data sheet, as well as technical advice otherwise given by our Representatives, Distributors or Agents, whether verbally or in writing, are based on our present knowledge and believed to be accurate at the time of writing. 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 will conduct their own tests to fully satisfy themselves that products will fully meet their particular requirements. Further, our policy of continuous product improvement may render some of the information contained in this Technical Data sheet out of date and users are requested to ensure that they follow current recommendations