

INK FACT SHEET

ULTRACHROME AQUEOUS INKS

In aqueous ink technology the vehicle for the colourant is water, not solvent (although in some inks the water is combined with a performance-enhancing agent such as glycol). The colourants in aqueous inks can be either dye-based or pigment-based. Both types are better suited to printing on paper substrates than on plastics or vinyls, although new, more versatile aqueous formulations are coming to the market. For some applications, the paper-based substrates should be coated to ensure the inks adhere sufficiently.

Durability and colour stability requirements will determine the decision to use dye- or pigment-based inks. Because the pigment particles adhere to the surface of the substrate, pigment aqueous inks provide short-term water-resistance, which dye-based inks do not. Pigment inks are also stable in UV light. These qualities make pigment aqueous inks the choice for prints displayed indoors or for short-term display outdoors.



UltraChrome Aqueous Inks

UltraChrome aqueous inks have been developed for the latest generation of professional inkjet printers. All inks have a high pigment density because of the resin coating on the particles, which produces an even surface and gloss, and give it a high level of stability on a wide variety of media, including fine art, speciality and plan paper. Their density is twice that of conventional pigment inks, reproducing an extremely wide colour gamut and deeper blacks. They also have excellent short-term stability, low levels of metamerism (with almost no change under different lighting conditions), and excellent scratch- and water-resistance.

UltraChrome High Dynamic Range (HDR) Ink

For use with the Epson Stylus Pro 4900, a professional-level printer for colour and black-and-white photography, fine art reproduction and colour-accurate commercial and professional proofing.

- **Extended ten-colour ink set:** The ink set includes a green and orange to provide a wider tonal range for higher colour accuracy, greater subtlety and smoother gradations; the medium and light black inks also reduce graininess in skin tones. Photo black and matte black cartridges can also be added.
- **Precision print head technology:** Optimised for use with Epson's new generation of Micro Piezo TFP print head technology, for better quality, higher speeds and greater reliability. Enhanced Variable Size Droplet Technology produces droplets as fine as 3.5 picolitres at resolutions up to 2880 x 1440 dpi. An ink-repelling coating and auto nozzle verification technology virtually eliminate clogged nozzles.
- **HDR with White Ink:** An UltraChrome HDR White ink is available for use with the Epson Stylus Pro WT7900 printer for packaging proofing. This ink features special resin-based hollow pigment particles that cause light to scatter and so appear white, specifically on clear and metallic films. It delivers outstanding density compared to other white inkjet inks, liquid toner and thermal transfer technologies.

UltraChrome K3 Ink

An eight-colour ink set, with Vivid Magenta technology, that delivers an extended colour gamut and produces superior black-and-white and colour photographic images under any light conditions.

The inks have been developed for use with the Epson Stylus Pro 11880 printer, which is targeted at producers of professional photographs, pre-press proofs and indoor promotional print signage. And for backlit POS displays, the combination of this printer with UltraChrome K3 inks and Epson's Display Trans Media kit produces the crisp, vibrant results that premium brands demand.

- **New eight-colour pigment inks:** The ink set delivers an extended colour gamut and produces superior black-and-white and colour photographic images under any light conditions. High-Gloss Microcrystal Encapsulation™ Technology gives reduced gloss differential. Improved pigment and resin chemistry provides superior scratch resistance. Colour is stable immediately after printing, with no short-term colour shifting. Depending on the media, it produces a black density up to 2.3 (Premium Glossy paper).
- **Three-level black ink technology:** It simultaneously uses Black, Light Black and Light Light Black inks to significantly improve the overall grey balance while eliminating colour casts, enhancing midtones and highlight detail, and resulting in a smoother tonal range. The three-level technology virtually eliminates the metamerism and bronzing of basic pigment chemistry.
- **Two black ink modes:** Optimised black ink density for various media types. Photo Black Ink gives professional quality results with all media types, while the optional Matte Black Ink increases black optical density when printing on matte and fine art papers. This means you can use the same printer for all media types.
- **Improved longevity:** Used with the Epson range of professional media, UltraChrome delivers lightfastness ratings of up to 75 years for colour and over 200 years for black-and-white¹.
- **K3 with Vivid Magenta:** The addition of newly-formulated Vivid Magenta further expands the colour gamut, providing accurate colour rendition with virtually no colour twist.

UltraChrome XD Ink

Specifically developed as a highly durable ink for a wide range of promotional, presentation and technical applications, from posters and banners to CAD/GIS drawings, and for use with the SureColor T-Series of four-colour inkjet printers.

- **Flexibility and productivity:** Supports high-quality printing on a wide range of media with deep absorption, minimum bleeding and fast drying. Epson Variable Size Droplet Technology brings clarity to fine detail while delivering consistent, dense fills to larger areas of colour.
- **Superior line drawing quality:** CAD/GIS graphics and architectural drawings benefit from a newly-developed matte black ink that delivers increased black density (up to 1.5 on Matte paper) and fine, crisp, dense lines with a minimum width of 0.02mm.
- **Excellent durability:** Water and gas resistant, for short-term outdoor use.
- **Very lightfast:** Ideal for prints requiring long-term storage, such as architectural drawings, and for short-term outdoor POS.

For more information please visit: www.epson.co.uk/photo-proofing or www.epson.co.uk/pos-cad

¹ Lightfastness rating is developed and conducted by Epson using accelerated testing of prints with genuine Epson-branded media and ink, under fluorescent light (indoor display conditions) with glass mount without lamination. Temperature, humidity and some atmospheric gases may also affect the rate of fading. The estimated lightfastness period does not indicate the colour changing or the durability of the paper itself. Epson does not guarantee longevity of prints. Epson recommends that your prints be glass mounted or laminated to protect them from atmospheric gases and other contaminants.