
The Light Fading Stability of an Improved Ink Set for IRIS Graphics Ink Jet Printers

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Abstract

In the fine art field, the high-resolution ink jet printers manufactured by IRIS Graphics, Inc. have—in the space of only two years—become the preferred direct digital output device for printing large-format color images. The IRIS printers can produce near-continuous-tone “photorealistic” color images on a greater variety of substrates than that of any

other type of traditional or digital color printing process. IRIS prints can be made with almost every type of paper (including heavyweight artists’ watercolor papers having a wide variety of surface textures), coated polyester or other plastic sheets, fixed and washed photographic papers, cloth, and most other materials that will accept the water-based inks used with the printers.

Prints may be produced in sizes up to 34 × 46 inches, and the cost of consumables (paper and inks) is much less than that of any other direct digital, “photorealistic” color printing process. IRIS printers operate in bright light, use no processing chemicals or wash water, and have no effluents that require disposal. All of these factors have contributed to the appeal of IRIS printers

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among photographers working with scanned photographic images in Adobe Photoshop or other digital image processing programs, and with “digital artists” who utilize computers to create their work.

IRIS printers were originally intended for direct digital proofing in the graphic arts field, and for computer-aided industrial design work. In most such applications, good light fading stability of the images is not an important requirement and the inks that have been available for IRIS printers in the past have had comparatively poor light fading characteristics—the prints have a much shorter display life than that of most traditional types of color prints. In the fine art field, however, where prints

may be sold for many thousands of dollars and the longest possible display life is desired, inks with much better light fading stability are required. (If made on a stable, non-yellowing print support material, the dark storage stability of IRIS prints appears to be very good.)

In this presentation, the light fading characteristics of a new ink set developed by IRIS Graphics for fine art and other display applications are discussed. The stability of the new ink set is compared with previously available inks, and with that of traditional color print materials. Additional protection for IRIS images that might be afforded by print coatings and UV-absorbing framing materials is also discussed.