

High Transparent Color UV Screen Inks and Color Matching

Introduction to Color Styling

This set of 8 highly transparent and brilliant transparent color inks are the core to our unique color styling system. By itself, these inks do not offer IR Blocking capability; however, can be printed over the IR Blocker layer to achieve an elaborate and colorfully functional design.

Description

The high transparent color concentrates are the basic system used to produce brilliant color in transparent inks or to add tones of heightened color to existing ink systems. The use of the color transparent inks to metallic ink introduces the possibility to use one or two metallic inks that will still provide the variety of color for card design effects and to satisfy multiple customer requests. We also offer color matching. These products put color control back into the hands of the end user!

Product Listing

Description	Product Number
UV Screen Transparent Black for Plastics	HWA5305
UV Screen Transparent Yellow for Plastics	HWA5312
UV Screen Transparent Red/Yellow for Plastics	HWA5321
UV Screen Transparent Red for Plastics	HWA5322
UV Screen Transparent Magenta for Plastics	HWA5323
UV Screen Transparent Green for Plastics	HWA5330
UV Screen Transparent Blue for Plastics	HWA5334
UV Screen Transparent Violet for Plastics	HWA5335

All color concentrates are free of metal making them exceptional colorants for the contactless chip cards.

Specific colors can be matched at H.W. Sands against prints, wet ink or PANTONE® numbers. Please speak with our sales team to get more information and to request a color match project form to get your project started!

Printing Recommendations:

All inks should be thoroughly mixed prior to use. Inks are supplied at print ready viscosity for most applications. If adjustment is needed the HWA5870 Thinner or HWA5049 Overprint Clear can be used to thin the ink.

Mesh: A mesh count of 305-355 threads per linear inch (120-140 cm²) low elongation, monofilament polyester is suggested. Tension should range from 18-25 N/cm² on a rigid frame.

Stencil: All direct emulsions and thin capillary films (15-25µ before application) compatible with UV inks are acceptable.

Squeegee: A sharp 80 shore durometer polyurethane squeegee is preferred. Inks can be printed with durometers ranging from 60-90 as well as dual durometer squeegees.

Curing Parameters:

HWA Series inks cure only when exposed to UV light of the proper wavelength. Curing speeds depend on several factors including ink film thickness and the energy level of the lamps. Ink should be cured immediately after printing.

Curing Equipment:

HWA Series inks are fast curing and work well with one 300 watts/in (120 watts/cm) or two 200 watt/in (80 watts/cm) medium pressure mercury vapor lamps. The HWA Series inks will cure up to 100 feet per minute (30 meters per minute) with most focused UV curing units.

Screen Cleaning:

Most conventional solvent cleaners work well. Alcohol based solutions must be avoided as they break down the emulsion. H.W. Sands recommends Press Wash 110 (flash point 113° F), 140 (flash point 140° F) or NSW-824 (flash point 150° F). These products are used for cleaning ink off screens during on press color changes or before storing the screen. They work well when removing ink from squeegees, flood bars and other equipment. Contact us for packaging options.

Coverage:

Approximately 2,500 square feet per gallon (230 square meters per gallon) depending on printing variables affecting ink film thickness and coverage.

Mixing:

All HWA Series colors are intermixable. The HWA Series inks may also be mixed with the Matte Series inks to achieve a wide range of gloss levels.

Precautions:

Avoid direct contact of ink with skin and clothing. If contact occurs, wash affected area with warm soapy water and dry thoroughly. If eye contact occurs, irrigate the area with water for 15 minutes and consult a physician. For more specific information, refer to the relevant Material Safety Data Sheet.

Adhesion:

The HWA Series is a non-visual post-curing system. Although further cross-linking occurs up to 24 hours later, the HWA Series inks should pass a crosshatch tape test, (ASTM #D3359-97), after exiting the curing unit and cooling to room temperature. Maximum chemical and abrasion resistance and adhesion will be attained after 24 hours.

Intercoat Adhesion:

HWA Series inks inter-coat adhesion is very good. Although loss of inter-coat adhesion is difficult, it should be monitored throughout the production run especially when printing 3 or more passes. Use of additives may adversely affect inter-coat adhesion.

Weatherability:

Weather resistance is subject to conditions of use. Consult the Technical Service Department prior to use for information regarding weather resistance and weatherable applications of the HWA Series inks.

Heat-Sealing/Embossing:

The HWA Series inks are formulated specifically to produce excellent results under controlled heat-sealing conditions. To obtain acceptable results the HWA Series inks must pass a crosshatch tape test, (using 3-M 600 tape) before heat sealing or embossing. Highly pigmented (opaque) inks and inks with special effects pigments may not heat-seal or emboss well. Radio frequency heat-sealing or high stress embossing of metallic ink is not recommended. For further details contact the H.W. Sands Technical Service Department.

Chemical Resistance:

The HWA Series inks have been exposed to a variety of chemicals to determine chemical resistance. The HWA Series has proved to be resistant to most common chemicals when properly cured.

Storage & Available Warranties

All UV HWA Series inks should be stored in tightly closed, black polyethylene containers in an area with the temperature not to exceed 90° F (32.2° C). Avoid direct sunlight and indirect white light. Excess ink from print runs should be stored in separate containers to avoid contamination and is not covered under any warranty. When stored under these conditions, H.W. Sands warrants the Products shall be free from defects in material and manufacture for a period of one (1) year from the date of sale for the HWA Series standard inks, with no additives, and for a period of one (1) month from the date of sale for any custom color containing Fluorescent colors. H.W. Sands will not warrant any custom colors containing metallic pastes or any inks intermixed with competitor products. Any warranties provided will be limited to the price paid for the actual products used which give rise to the warranty claim. This Technical Bulletin is intended to be used for informational purposes only, and is in no way intended to create any warranties or other obligations on behalf of H.W. Sands. All warranties, terms and/or conditions for a particular product will be specified on the applicable invoice and are only valid upon the creation of a legally binding contract.

Testing

Due to the inability of H.W. Sands to anticipate or control the conditions under which the Products and information relating thereto will be used and/or stored, H.W. Sands cannot guarantee the results obtained from using the Products. Any Suggested Uses are merely representative, and because the final product will depend on a number of specific factors, the end user should pretest all substrates with the Products prior to use in production. Revision: 04/01/2011 Supersedes: 12/27/2010.

*PVC Plastics:

Decoration can aggravate embrittlement properties of PVC plastics which can lead to cracking and failure of the plastic. It is strongly recommended that the end user contact the polymer manufacturer to obtain information on the suitability for decorating with a UV ink as well as recommendations for molding / processing to reduce this potential. As every situation can not be tested for in a laboratory environment, it is the responsibility of the end user to determine the suitability of the products chosen for an end application.

All applications using this product should be thoroughly tested prior to approval for production.

The information herein is believed to be reliable and is to assist customers in determining whether our products are suitable for their applications. However, no warranty, express or implied, is made as to its accuracy or completeness and none is made as to fitness of this material for any purpose. Our products are intended for sale to industrial and commercial customers. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. Nothing herein shall constitute any other warranty, express or implied, including any warranty of merchantability or fitness, nor of protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials and in no event shall we be liable for special, incidental, or consequential damages. We shall not be liable for damages to person or property resulting from its use. Consult the Material Safety Data Sheet for additional information.