

Avery Dennison Series 4930 Series Inks (10 year-1 Component Solvent Ink)*

Instructional Bulletin # 8.40

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Introduction

Series 4930 Process Colors are designed for use on Avery Dennison's T-5500A, 6500, 7500 MVP and T-9500 Omni-View Sheeting. This ink system is specifically formulated to maintain its effectiveness and durability and is only approved for use on Avery Dennison sheeting. Since Avery Dennison has no control over the manufacture of other ink systems, users must determine the suitability of such products for their intended use. No responsibility for untimely failure of a sign face assumed because of the use of unsuitable process inks.

Although the application of the clear coat adds to the durability of the brilliant transparent colors, it is not necessary. However, clear coat is still an available option.

To obtain the proper colors, ensure weatherability, and attain screening efficiency, it is important the user carefully follow all procedures within this technical bulletin.

Safety and Handling

Refer to the Material Safety Data Sheet and all product labels for comprehensive information on the safety and handling of process colors.

4930 Ink Colors

Opaque Black

Transparent Yellow

Transparent Red

Transparent Green

Transparent Blue

Transparent Brown

Transparent Orange

Clear Coat

Thinner

**- Note 4930 Series Inks with Omni-View have a 12-year durability, see the Omni-View PDB.*

4930 Process Colors continued...

Equipment and Procedure

(See Fig. 1)

Mesh — A high-grade polyester monofilament screen fabric or equivalent should be used. A screen mesh of 157-180 is required to achieve proper color.

Stencil — Stencil materials must be solvent resistant. Rapid photopolymer direct emulsions or capillary films are recommended. Solvent-adhered stencil films should not be used with the Series 4930 system.

Screen — Use a uniformly tight silk screen with a metal or wood frame. The screen should have a well area 6" or greater.

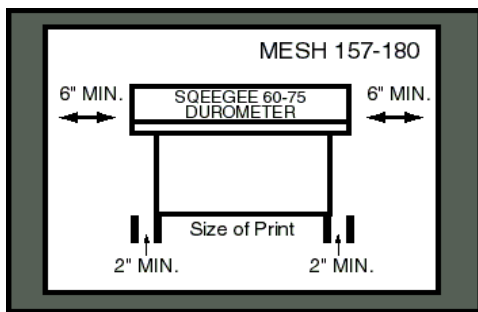


FIGURE 1

Squeegee — Squeegees should be medium-hard (60-75 durometer) with a sharp, square edge free of nicks etc. The squeegee should be of a length that overhangs the image by 2".

Processing

Allow the ink to acclimate to room temperature before processing. Thoroughly mix the ink, with a power mixer and allow any air bubbles to escape before using. The 4930 series ink should be power mixed for a least ten minutes prior to screening. Power mixing of the ink will allow the pigments in the ink to be completely dispersed throughout. If the ink is not properly mixed a majority of your pigment will settle to the bottom of the ink can.

Inks and clear coat are packaged press ready. The ink may be thinned with 4930 thinner up to 10% to replace any solvents lost during use or in high heat shop conditions. Do not mix any inks or thinners together that are not of the Series 4930 System.

Screen processing may be accomplished by using the off-contact method of screen printing. Be sure that all components of the printing process are free of dust, dirt, and other airborne particles that may contaminate the printing surface.

In the event of a screening error, immediately wipe clean the misprint with the Series 4930 Thinner. If the image dries, it cannot be removed. The user must determine the suitability of the face before it is reused.

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Drying

The Series 4930 System can be air- or oven-dried. The use of additional thinner, poor air movement, high humidity, etc., can slow the drying process. It is very important to check each production run for ink adhesion as extra solvents can cause a lack on ink drying which can cause poor initial ink adhesion or ink blocking. Exhaust ventilation should be utilized to remove solvent vapors while providing a safe environment.

Air-drying — Air-drying in racks requires high volume air movement (4000-6000 cfm) across the individual rack faces. Allow a minimum of 2" (5cm) between shelves for air flow (See Fig. 2). If proper ventilation is used, the inks should air-dry for a minimum of 1 hour between colors, 2 hours prior to clear coating, and a minimum of 4 hours after clear coating.

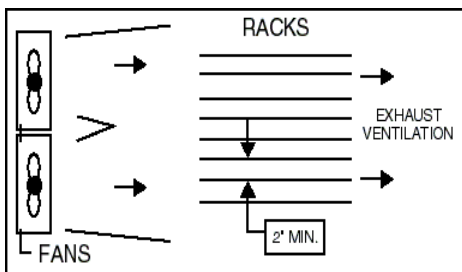


FIGURE 2

Oven-drying — When oven drying ink do not exceed temperatures of 190° (88° C). Sufficient horizontal air movement is also required. The colors should be oven-dried for a minimum of 15 minutes between colors and 30 minutes after clear coating.

Wash Up

Contact the following company regarding wash up systems for cleaning screens and equipment:

Intercontinental Chemical Corporation
4660 Spring Grove Ave.
Cincinnati, OH 45232
1-800-543-2075

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Packaging

Finished signs need to be packaged face-to-face. Every sign face must be protected with a piece of slip sheeting. The smooth side of the slip sheeting should be placed against the face. Avoid any heavy stacking and always store the signs on edge.

Storage

Containers should be tightly closed immediately after use. At the end of long-printing runs, dispose of surplus ink from the screen. Never mix used ink with fresh ink.

Do not store inks in direct sunlight or at extreme temperatures. For maximum shelf life, storage temperatures should be between 50°F-77°F (10°C-25°C).

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