

Converting of Avery Dennison® Omni-Brite S-9000 Series

Instructional Bulletin # 8.56

Issued: 11/22/05

Storage and Conditioning

Avery Dennison Reflective Sheeting should be used within one year of date of purchase. All guarantees and warranties, expressed or implied, shall become null and void in all respect on materials stored prior to application for periods in excess of one year.

Recommended Inks

Nazdar VF Series Inks are formulated to render 1 year exterior performance on S-9000 Series sheeting when the process guidelines outlined in this document are implemented. VF Series inks are formulated to fuse with the flexible vinyl surfaces.

Ink Preparation

Before adding ink into the screen, mix thoroughly. Thinner should be added to the ink prior to printing. VF190 (Thinnery)/VF192 (Retarder) may be added as the ink loses solvent during the course of processing. However, the customer is responsible for testing the ink durability if more than 10% thinner is utilized.

Material Preparation

To ensure the most effective ink application, Avery Dennison Reflective Sheeting should be wiped with Isopropyl Alcohol using a clean cloth. This cleaning ensures that all contaminants are removed from the printing surface.

Mesh Recommendations.

Nazdar VF Ink formulations have been carefully selected to provide excellent opacity and fast drying qualities with good printability when printed through a monofilament 150 to 280 screen mesh. Other mesh sizes can be used as long as the cured inks yield the color and the reflectivity that meets your internal specifications.

Drying

Drying occurs with Nazdar VF inks by solvent evaporation and oxidation. Air-drying is recommended for this ink system. When air drying, good airflow is important. However, the use of additional thinner / retarder, poor air movement, high humidity, etc. can slow the drying process. Prints should be racked with a minimum of 1.5 inches between each other. Exhaust ventilation should be utilized to remove solvent vapors.

Nazdar VF inks must be properly dried prior to stacking. To achieve this, inks must be dried for a minimum of 20-40 minutes at 72 ° F and a RH of less than 50%. Cooler temperatures and/or higher humidity may lengthen drying times. Higher temperatures and /or lower humidity may shorten drying times. After the required drying period and evaluating the dry ink for block resistance, sign faces can be stacked in short stacks.

Omni-Brite Converting continued...

Squeegee Selection

A sharp 65-70 durometer polyurethane squeegee blade is recommended. A sharp squeegee with the proper amount of pressure is required for optimum print resolution on all applications. Slight imperfections in the squeegee will be readily visible in the quality of the print. Thus, the condition of the squeegee and proper squeegee maintenance are a must. The squeegee blade must also be positioned at the correct angle to assure proper ink transfer.

Squeegee Technique

Most squeegee related problems are caused by applying too much pressure. Any time the squeegee has enough pressure applied to bend the blade or severely change the angle, the proper “cutting edge” of the blade will be lost.

The lower the durometer of the squeegee, the more prone it will be to distortion from excess pressure. To mitigate this issue, a 65-70 durometer squeegee is recommended. The 65-70 durometer surface will contact the ink and screen to allow proper ink deposition and reduce screen wear from excessive abrasion.

Caution should also be exercised to ensure the screen frame is sufficiently larger than the print area. If the squeegee edge is too close to the frame; the screen will not stretch properly and uniformly during printing. This will cause the outside edges of the squeegee to bend with the pressure required maintaining substrate contact. The end result will be poor print quality.

Storage of Finished Signs

Make sure to mark all printed material with the appropriate manufacturing information so the signs may be tracked at a later date. Allow any printed signs to set for 12 hours before further fabrication.

Cleaning of Printed Material

A mild soap or detergent along with warm water and a soft cloth or sponge can also be used to clean the material. The cleaning solution should be non-abrasive and free of solvents. Avoid all other solvents.

NOTE: The above recommendations and cleaners are intended as a source of information and are given without a guarantee and do not constitute a warranty. Purchasers should independently test cleaning agents and methods, prior to use to determine their suitability.

Caution: Wearing gloves, safety glasses, and other safety equipment is required when working with inks and cleaning solvents.

Omni-Brite Converting continued...

Warranty:

WARRANTY: All statements, technical information and recommendations about Avery Dennison products are based upon tests believed to be reliable but do not constitute a guarantee or warranty. All Avery Dennison products are sold with the understanding that Purchaser has independently determined the suitability of such products for its purposes. Avery Dennison products are warranted to be free from defects in material and workmanship for either one year (or the period stated on the specific product inform action literature in effect at time of delivery, if longer) from date of shipment if said product is properly stored and applied. It is expressly agreed and understood that Avery Dennison's sole obligation and Purchaser's exclusive remedy under this warranty, under any other warranty, express or implied, or otherwise, shall be limited to repair or replacement of defective product without charge at Avery Dennison's plant or at the location of product (at Avery Dennison's election), or in the event replacement or repairs is not commercially practical, to Avery Dennison's issuing Purchaser a credit reasonable in light of the defect in the product.

Avery Dennison's liability for defective products shall not exceed the purchase price paid therefore by Purchaser and in no event shall Avery Dennison be responsible for any incidental or consequential damages whether foreseeable or not, caused by defects in such product, whether such damage occurs or is discovered before or after replacement or credit, and whether or not such damage is caused by Avery Dennison's negligence.

NO EXPRESS WARRANTIES AND NO IMPLIED WARRANTIES, WHETHER OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE, OR OTHERWISE (EXCEPT AS TO TITLE), OTHER THAN THOSE EXPRESSLY SET FORTH ABOVE WHICH ARE MADE EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, SHALL APPLY TO PRODUCTS SOLD BY AVERY DENNISON. AVERY DENNISON SPECIFICALLY DISCLAIMS AND EXCLUDES ALL OTHER SUCH WARRANTIES. NO WAIVER, ALTERATION, ADDITION OR MODIFICATION OF THE FOREGOING CONDITIONS SHALL BE VALID UNLESS MADE IN WRITING AND MANUALLY SIGNED BY AN OFFICER OF AVERY DENNISON.

Avery Dennison, 6565 W. Howard, Niles, IL 60714, USA, 1-800-327-5917, www.reflectives.averydennison.com