

Avery® Instructional Bulletin 4.04

Tips for Printing and Finishing Idanit Prints

Introduction

This bulletin provides recommendations for printing and finishing of Idanit prints. Please be sure to read, understand, and practice proper safety and operating procedures recommended by Idanit. Once the image has been printed on Avery digital media, additional graphic protection can be obtained by overlaminating or clear coating to provide abrasion, chemical and weathering resistance. For a listing of MPI materials and durability / warranty information refer to relevant MPI data sheets.

Loading

- The core must be mounted securely between the metal cones.
- To ensure even loading of vinyl onto the drum, be sure that there is even tension across the tension/idler roll. Materials that are not loaded properly may experience problems loading onto the drum.
- Make sure right edge (front view) of the film is within 5mm from the edge of vacuum holes. This will help prevent edge lifting.
- The recommended loading process is as follows (AV1002):
 1. Full drum speed
 2. Vacuum on
 3. Iron on
 4. Relax media
 5. Execute print

FULL -- VAC -- IRON -- RELAX -- EXE

NOTE: This is a starting place only. Other loading macros work differently on each machine.

Printing

Problem	Possible Cause	Solution
Ink runs at edge of media	Wavy edges / media lifting from drum at edge	Make sure MPI products on 6" (15.2cm) core are being used. (The MPI products are specifically designed for loading onto the Idanit printer.)
		Move media edge over vacuum hole (5mm from edge).
		Try using recommended loading macros. Work through different loading combinations until the appropriate sequence is located.
		Unplug vacuum holes on the drum.
		Move bridge back from drum. This will reduce sharpness of image but may fix problem.
		Store media vertically. Allows media to settle causing edges to be flush with the core.
		Shop conditions should be in recommended range for material being used. See specific product data sheet for material being used.
		Use material on 6.0" (15.2cm) core.

Problem	Possible Cause	Solution
Ink mottle	Drum temperature too low	Adjust drum temperature. Standard setting is 3-4.
	Incorrect FM table	Select different FM table. Use table created for media being used.
Clogged print heads	Drum temperature too high	Lower temperature setting. Standard setting is 3-4.
	Print heads dirty	Clean print heads.
Media is loading incorrectly	Media is wrinkled or wavy when loaded onto drum	Make sure MPI products on 6" (15.2cm) core are being used. (The MPI products are specifically designed for loading onto the Idanit printer.)
		Try using recommended loading macros. Work through different loading combinations until the appropriate sequence is located.
		Create your own loading macro.
		Cover unused vacuum holes with a low tack premask. This will increase vacuum on holes that are in use.
		Unplug vacuum holes on the drum.
		Use material from a 6.0" (15.2 cm) core.
		Make sure that material is evenly tensioned.
Media not flat on the drum	Not using MPI materials	Make sure MPI products on 6" core are being used. (The MPI products are specifically designed for loading onto the Idanit printer.)
	Incorrect loading macro	Try using recommended loading macros. Work through different loading combinations until the appropriate sequence is located.
	Media out of position	Move media edge over vacuum hole (5mm from edge).
Media is not unloading properly	Media is sticking to the drum	Lower the drum temperature. Standard setting is 3-4.
	Unload speed of drum is faster than transfer conveyer	Lower drum unloading speed or increase transfer conveyer speed.

Drying

Recommended Oven Temperature and Dryer Dwell Time

- After completion of the print cycle on the Idanit, the ink must be thoroughly jet dried to eliminate the solvents from the ink.
- It is recommended that the sheet remain in the heat section of the dryer for a minimum of 60 seconds at 88° - 93°C with good air exchange to eliminate solvent retention in the printed graphic.

NOTE: Excessive solvent retention can compromise film and adhesive properties. Actual jet dry times will depend on equipment and shop conditions.

Ink Adhesion Testing

1. Print 'cmykbars' test file from Avery test image CD.
2. After all adjustments to the printing press have been made, print a typical wet production sample. Place the printed sheet onto the belt and pass it through the drying unit one time at the recommended settings.
3. Test the printed sample for proper solvent evacuation and ink adhesion by abrading the ink surface with your fingernail, and performing a tape test. It is recommended that Scotch #610 tape be applied to the 4 color black square for 60 seconds and then pulled from the surface in a perpendicular motion (90° pull from printed sheet).
4. If the results from the above test are acceptable, then proceed with production.
5. If either test fails, (fingernail abrasion or tape test) then increase the amount of time the sheet remains in the heat section of the dryer (i.e. decrease the belt speed). Return to Step 1.

Finishing

Screen Printed Clearcoats

- Nazdar 3529
- Sericol UVF K93332
- Sericol Polyplast PYEL 433

Waterbased Clearcoat

- Valspar 510

Overlamine

- DOL 1000
- DOL 1100

Application of Overlamine

- Refer to Instructional Bulletin 4.06 for instructions to apply digital overlaminates.

Decal Application

To apply films, refer to Instructional Bulletin 1.4 Application Methods for Pressure Sensitive Adhesive Films.

For further information, contact your local Avery Graphics representative.