

Avery[®] Instructional Bulletin 4.05

Printing and finishing of Avery[®] TPM-M Media on the Matan Sprinter

Introduction

This bulletin provides recommendations for printing and finishing of Matan Sprinter prints using Avery TPM-M materials. These materials have been specifically developed for use on the Matan sprinter thermal transfer printer. Avery Dennison stresses that TPM-M materials are produced under clear conditions with careful quality control. Packaging of all TPM-M media includes a plastic cover tight around the roll, inside a carton.

Please be sure to read, understand, and practice proper safety and operating procedures recommended by Matan. Once the image has been printed on Avery[®] digital media, additional graphic protection can be obtained by overlaminating to provide abrasion, chemical and weathering resistance.

Printing Recommendations

Prior to Printing

1. ONLY use media that have been approved by Avery and Matan (a list is available at Matan and its distributors and is updated periodically).
2. All media and ribbons that are not in use must be stored in their original packaging.
3. All covers, doors, windows must be closed. The cleaner the environment in which the Sprinter is placed, the smaller the likelihood of failures. The preferred location is an office environment.
4. Due to high media web tension it is recommended that you do NOT print on the last metre of media at the end of the roll.
5. The operator must clean the 'sticky' roller at the beginning of each working day, and make regular visual checks to avoid build up of contamination.
6. When changing the media roll, you must cut off the first metre before feeding the new media under the heads, this is to prevent scratching the heads by possible contamination on the outside roll.
7. When changing the head-card, head, or cables to the head, you must cut the substrate next to the roll and pull the piece underneath the head, outside. Then insert the substrate in again manually.

Loading

1. Open the print heads and manually feed the media between the heads and the idler rolls. Pull the media firmly and align with edge guide. Maintain hand tension on the web and close the nip/drive roll.

Ink Adhesion

1. Test the sample for proper adhesion by abrading the ink surface with your fingernail, and perform a crosshatch tape test (as outlined in ASTM D3359). It is recommended that Scotch #610 tape be applied to the cross hatched area for 60 seconds and then pulled from the surface in a perpendicular motion (90° pull from printed sheet).
2. If the results from the above test are acceptable, then proceed with production.
3. If either test fails, review head temperatures for consistency.

Please also consult the Matan Sprinter user manual.

Note: In the rare case of finding a linear defect in the print, follow the instruction below:

1. Go back to beginning of the print and try to find out where the defect started.
2. Try to find the possible cause of the defect. This can be anything from electrical failure to mechanical failure or substrate contamination possibly caused by external factors.
3. Keep for inspection: the media, any suspected object possibly causing the defect, the damaged print head, the remainder of (unprinted) media, the lot-number of the media which can be found on the original packaging (box label) and the used ribbon.
4. Contact your local distributor.

Finishing

ONLY use Avery DOL overlaminates in combination with Avery TPM-M media. The following combinations are recommended and supported by Avery Dennison.

Appearance	Gloss	DOL 1000	DOL 2100	DOL 3500	DOL 4300	
	Lustre / semi-gloss		DOL 2000	DOL 3400		DOL 5900
	Matt	DOL 1100		DOL 3300		DOL 6000 DOL 6100
Avery Digital Print Media	Avery TPM-M 1010	< 5 years	< 4 years	< 2 years	< 5 years	Indoor only
	Avery TPM-M 2010	< 4 years	< 4 years	< 2 years	< 4 years	Indoor only
	Avery TPM-M 2020	< 4 years	< 4 years	< 2 years	< 4 years	Indoor only
	Avery TPM -M 3012	< 3 years	< 2 years	< 2 years	< 3 years	Indoor only

Please see Instructional Bulletin 4.06 for processing of Avery DOL films.

Trouble shooting guide

Problem	Possible Cause	Solution
Image not registered	Colour registration may be out of specification	Change delay on the M, Y, and K to line up with C (cyan). See Sprinter manual for procedure.
Cross web colour bands	Uneven head temperature	Energy setting and head temperature too high for media. Reduce energy level and maintain consistent head temperature.
Streaks	Dirty print head	Clean print heads. Resin may build up over time. (Clean with IPA and soft lint free cloth.)
Colour variation between prints	Varying head temperature	As print heads warm up the colours become darker. Maintain consistent head temperature.
Unprinted areas	Dirt on media	Store media in plastic bag and keep area around printer clean. Clean rubber tack rollers regularly.
Continuous deletion in print direction	Scratched print head	The print head must be replaced.
	Wrinkle in ribbon	Re-install ribbon to remove wrinkles. Advance ribbon, it will generally self-correct.
Material not feeding properly	Media is not lined up	Open drive roll and pull web to ensure consistent tension. Keep tension on media until drive rolls are closed.
Static	Low Relative Humidity (RH)	Increase RH with a humidifier to 50 ±5% RH.
		Use static dissipation equipment.

For further information, contact your local Avery Graphics representative.