

Recommendations for printing and finishing Synaps OM135/AP – OM135/AR

IMPORTANT!

Please consult www.agfa.com/synaps

1/ for the most recent version of this document!

2/ for the compatibility overview of Synaps OM135/AP and Synaps OM135/AR!

Synaps OM135/AP-AR is a self adhesive synthetic paper based on a high grade polyester substrate. It is coated with an ink receptive layer. Synaps OM135/AP-AR has no grain direction.

Printing

Synaps OM135/AP-AR face stock surface is suitable for offset, HP Indigo (sheetfed), screen, flexo, and gravure printing. It is also suitable for UV curable inkjet printing. It is not suitable for non-UV inkjet printing. The back side material (liner) surface is not suitable for printing.

Offset printing recommendations

No special inks are required. No special drying agents to mix with the inks or fountain solution are recommended. For the best results consult your ink supplier.

Recommended densities (measurement on wet print, white backing) for process inks on Synaps OM135/AP-AR are:

K: 1.50 – C: 1.20 – M: 1.15 – Y: 1.20.

For printing pantone colours or other spot colours, use the (pantone or spot) colour sample book for uncoated paper as a reference.

When the printed job needs to be finished with a dispersion lacquer or a varnish, we recommend to print lower densities, because the printed densities will increase with 0.10 to 0.20 (typically) when dispersion lacquer or varnish is applied.

Note: too high ink densities must be avoided, to prevent drying and finishing problems.

Synaps OM135/AP-AR will feed like coated paper. For optimum press feed reliability ensure that sheets are aired (fanned) prior to printing.

Important ! To avoid marking, minimize pressure of suckers and feeder-board wheels/brushes or move them outside the print area if possible.

Synaps OM135/AP-AR has a very smooth surface. Only minimal squeeze (0.05 - 0.10 mm) is required to ensure uniform coverage.

No intensive powdering is required. The ink sets very fast on Synaps OM135/AP-AR.

For an optimum hardening of the ink layer, the printed sheets should be aired regularly.

With heat drying systems adjust temperature taking into account the heat sensitivity of the film. Pile temperature should not exceed 50 °C (122 °F).

HP Indigo printing

Synaps OM135/AP-AR is compatible with HP Indigo sheetfed presses.

Synaps OM135/AP-AR can be used for variable data printing with very good printing results. For very long production runs, experience learns that the blanket needs to be replaced sooner compared to paper printing. Adjusting the blanket temperature up to a level just high enough to dry the HP Indigo ElectroInk will extend the lifetime of the blanket.

Printing Synaps OM135/AP-AR on dry toner printers

Synaps OM135/AP-AR can be printed on a range of dry toner printers (successful printing depends on the capability of the dry toner printer used) but you have to take following restrictions into account.

To avoid glue build-up on the fuser drum, don't print with too high fuser settings. Use a fuser setting just high enough to cure the toner (test toner adhesion by scratching the printed image with your finger nail).

To avoid heat generation in the printed pile, don't print more than 20 consecutive sheets.

Always do a compatibility test before deciding to use Synaps OM135/AP-AR for a specific print job.

Varnish or aqueous coatings

Both with water-based or oil-based varnishes, a higher level of coating may be required compared to paper.

Important ! Always test before deciding to use Synaps OM135/AP-AR for a specific job!

For best water resistance

Respect recommended print densities and overprint with an aqueous (water based) dispersion lacquer – not a solvent based lacquer or varnish. Please ask your ink supplier for advice.

Always test on beforehand for critical jobs.

For best wet scratch resistance

Synaps OM135/AP-AR is more sensitive for scratching when the printed substrate is wet.

Wet scratch resistance can be improved with a dedicated overprint water based dispersion lacquer. Agfa recommends Actega Terrawet Barrier Coating G 9/523. The thicker the lacquer layer, the better the wet scratch resistance (a thick layer can also be obtained by printing multiple layers)! Always test on beforehand for critical jobs.

Converting and finishing

Guillotining

Use sharp and clean blades. Do not cut lifts higher than 5 cm (2 inches).

Die cutting

Use sharp hard steel blades with rounded inner corners. Avoid inside die-cuts less than or equal to 90 degrees. Keep retention points small and few. The best results are obtained on cylinder type presses. Platen type presses are less suitable especially for complex die cut shapes.

Always do a test before deciding to use Synaps OM135/AP-AR for a specific die cut job.

Drilling

Use sharp and clean drill bits. Drills have to be free of nicks. Use short dwell times during drilling to eliminate heat generation. Don't drill too high lifts. Recommended drills are steel drills coated with Teflon (to prevent sticking). If possible, lower the speed of the drills to prevent heat generation.

Intermediate spraying on the inside and the outside of the drill with 'dry silicone spray' or intermediate drilling in wax paper (lubrication inside the drill bits) will facilitate drilling and will extend the life and sharpness of the drill significantly.

The best results are obtained with drilling equipment that have drill bit lubrication and drill bit cooling.

Laser cutting

Laser cutting works well. The power of the cutting device needs to be adjusted according to the thickness of the substrate.

Rolling trimmers/cutting plotters

Rolling trimmers work well with Synaps OM135/AP-AR.

Laminating

Synaps OM135/AP-AR face stock can be laminated with PET/PE film and OPP film. The operating temperature should not exceed 120 °C (248 °F).

Tests with PVC film were not successful.

Always do a test before deciding to use a Synaps OM135/AP-AR for a specific lamination job.

Hot foil stamping

Hot foil stamping is possible.

Storage

Synaps OM135/AP-AR storage conditions are not critical. Synaps OM135/AP-AR can be stored like paper. It is recommended to keep relative humidity in the storage room between 40% and 80%.