Film for Black

Code A4TMB

PRODUCT DESCRIPTION

High-tech clear film products developed to offer professional high quality print results using normal commercial inkjet printers. Made in two different qualities: 135 µm and 165 µm film thicknesses. Available in various roll and sheet sizes to fit all specific job requirements.

APPLICATION FIELDS

Formulated for dye, pigment, mixed and latex inks. It's designed for "high resolution image reproduction", in both positive or in negative versions. As well as for the production of printing templates, for contact reproduction processes, for the use with ink jet printer as matrix for repro production needs in: screen-printing, textile printing, pad printing, hard-flexographic printing, overhead print transparencies, indoor display graphics, templates in geographical information's systems, architectural transparent print applications, rubber stamps, sign-making, window signage, backlit graphics, etc.

GENERAL FEATURES

- Ready to use
- To operate in full daylight conditions
- Designed for all inkjet water based inks
- Transparent microporous coating that offering a capillary action leading inks to be instantly trapped
- Satin clear finish
- Higher transparency >89%
- Optimised for the new high-speed plotter generation
- Stabilized polyester base for highest register accuracy (important for colour processes)
- Provide finer nuances regulation and grey shading
- High lines/edge definition, till 180 lpi (~70 lpcm) half-tones
- High covering, >4.0 UV-density with original black inks
- Antistatic treatment
- Easily stackable
- It prints moves smoothly through the printer
- Quick drying times, even with high grammage ink deposition
- Good performance when vacuum is applied during copying
- Very good chemical and mechanical resistance
- Very good water resistance
- No need of chemicals and/or water
- Scratch and bleed-resistant
- Good filling (ink archiving), no foil-to-foil ink transfer
- Faster exposure times than laser positives
- No heat needed to fuse inks
- Much more durable that vellum paper
- Roll widths from 17" to 60"
- Sheet formats: A2/A3/A4

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TECHNICAL DATA

Film for Black 135 µm

Properties	Method	Unit	Typical values*	
Weight		gram/m^2	175	
Roll core		inches	3	
Roll widths		inches	from 17"	to 60"
Roll length		meter	30	
Sheets formats	DIN EN ISO 216	DIN-A	A4, A3, A2	
Thickness	ASTM-D-374	µm	± 136	520 Gauge
Thickness tolerance	ASTM-D-374	µm	± 4	± 16 Gauge
Tensile strength	ASTM-D-882	kg/m^2	MD: 18	TD: 21
Elongation	ASTM-D-882	%	MD: 90 min.	TD: 80 min.
Friction coefficient	ASTM-D-1894		Static: 0,45	Kinetic: 0,40
Optical density	ISO 5-2:2009	Dmax UV	> 4	
		Dmin UV	< 0.08	
Shrinkage (150°/30 min.)	ASTM-D-1204	%	MD: 2,45	TD: 0,45

* Production conditioned tolerances may occur

Film for Black 165 µm

Properties	Test method	Unit	Typical values*	
Weight		gram/m^2	215	
Roll core		inches	3	
Roll widths		inches	from 17"	to 60"
Roll length		meter	30	
Sheets formats	DIN EN ISO 216	DIN-A	A4, A3, A2	
Thickness	ASTM-D-374	µm	± 166	520 Gauge
Thickness tolerance	ASTM-D-374	µm	± 4	± 16 Gauge
Tensile strength	ASTM-D-882	kg/m^2	MD: 18	TD: 21
Elongation	ASTM-D-882	%	MD: 90 min.	TD: 80 min.
Friction coefficient	ASTM-D-1894		Static: 0,45	Kinetic: 0,40
Optical density	ISO 5-2:2009	Dmax UV	> 4	
		Dmin UV	< 0.08	
Shrinkage (150°/30 min.)	ASTM-D-1204	%	MD: 2,45	TD: 0,45

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HOW TO USE

Consider that dot shape, dot size, screen angle, line rulings are all characteristics manually set in the graphic software application and finally generated by a RIP software (raster image processor). The RIP applies halftone parameters and select specific characterization curves for specific screen press/substrate combinations as specified by the operator. Sharpness and ink opacity (D_{max}) depend on the printer, the used driver, the RIP settings and the type of ink used. We recommend the use of a good performance RIP to allow the best print settings. In normal production environment's, **Film for Black** performs as any conventional image setter film would do.
High quality coated film is an important factor determining image quality when making positives and negatives with a professional setting of the inkjet printer. Use **Film for Black** formulated to control the shape of fine lines and halftones with off-the-shelf aqueous pigment, dye, mixed or latex inks as well with proved compatible inks. The coating is water resistant to prevent smearing under high humidity conditions. It is compatible with all Epson printers as well with other printers as Mimaki, HP, Canon, Agfa, Roland and similar well-known printer manufacturers.

1. Prepare the artwork for your output as usual in your informatics system. A minimum of 600 dpi should be used, recommended is 1200 dpi, better if higher resolution is applied. Note that higher resolution templates will take longer to print out.
2. Load accurately the printer tray so that the coated side of the film faces the inkjet printer head.
3. Set the print options for your specific job. While printer options will vary, look for the following:
4. Set the needed dot form and other mind rules
5. In the Print Dialog Box, select the highest dpi possible (even if this will slow down the print speed)
6. Next, select "Transparency", "Photo Quality Glossy Film", or a similar setting for the Paper/Media option
7. Select ink deposit to maximum setting
8. Preferable, print with unidirectional setting
9. Preferable, print in quality or portability setting
10. Take care to minimize the distance from the print head to the substrate film
11. Print
12. Drying time varies based on printer, ink quality and room temperature and humidity
13. Preferable, do not use the printed positive until is completely dried. You can accelerate the drying time using a drying cabinet.
14. Do not wet or leave the prints in a wet room. It would be very foolish to have your wash out sink next to your exposure unit where water might spray the film or increase the room humidity. If the room humidity is high, dry completely the film again just before use a vacuum unit to expose your stencil. Have a dehumidifier in your workroom if the environment is humid.
15. Avoid touching the surface of the paper. Fingerprints and other stains may have a detrimental effect on the quality of printed pictures and colours.
16. Keep the printed sheets in a safe place, away from sources of heat and damp
17. If correct handled, film positives can be used repeatedly to repeat new stencils
18. To obtain the best printing register accuracy, optimize the plotter setting and maintain air conditioning in your workshop.
19. It is recommended to make previous tests with the film, before starting production.

PACKAGING

Rolls sizes for 135 µm	Rolls sizes for 165 µm
17"x30m (43.18 cm x 30m)	17"x30m (43.18 cm x 30m)
24"x30m (60.96 cm x 30m)	24"x30m (60.96 cm x 30m)
36"x30m (91.44 cm x 30m)	36"x30m (91.44 cm x 30m)
42"x30m (106.68 cm x 30m)	42"x30m (106.68 cm x 30m)
44"x30m (111.76 cm x 30m)	44"x30m (111.76 cm x 30m)
50"x30m (127.00 cm x 30m)	50"x30m (127.00 cm x 30m)
54"x30m (137.16 cm x 30m)	54"x30m (137.16 cm x 30m)
60"x30m (152.40 cm x 30m)	60"x30m (152.40 cm x 30m)
Ready cut sheet sizes in 100 sheets/box for both film thicknesses	
A4 (210 × 297 mm)	A4 (210 × 297 mm)
A3 (297 × 420 mm)	A3 (297 × 420 mm)
A2 (420 × 594 mm)	A2 (420 × 594 mm)

SPECIAL RECOMMENDATIONS

Warehousing:

To assure and maintain the best printing characteristics:
Storage temperature between: 15°C - 30°C (59°F - 86°F)
Storage room humidity: 45% - 65% H_r,

Film for Black will remain stable for decades if stored properly. Like all positives and negatives films, you should not allow them to get wet. Note that the emulsion could streak if water is sprayed on them. Once the original packing is opened, keep it away from direct sunlight, in a clean and dry environment. We suggest always to protect the films from dust, water, high humidity and high temperature (over 30°C/86°F).

Troubleshooting:

- Printing on uncoated side.
- Wrong film for ink quality.
- No using a proper postscript RIP.
- Poor original images.
- Bad printer settings. See the printer manual for information.
- Bad RIP settings. See the RIP manual for information.
- Worse room conditions.

IMPORTANT NOTE

The information given in this technical sheet is not intended to be exhaustive and any person, using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us of the suitability of the product for the intended purpose, does so at his own risk.

While we endeavour to ensure that all advice we give about the product is correct, we have no control over either the quality or condition of the substrate or the many factors affecting the use and application of the product.

Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage arising out of the use of the product.

The information contained in this sheet is liable to modification from time to time in the light of experience and our policy of continuous product development.