

Using KODAK PROFESSIONAL ENDURA Metallic Paper



With KODAK PROFESSIONAL ENDURA Metallic Paper, you enter a different dimension for commercial and portrait output. It offers a unique look with a metallic appearance and glossy finish that creates images with exceptional visual interest and depth.

This paper offers outstanding image performance, workflow productivity as well as business-building opportunities for photographers and labs alike. And it is ideal for a variety of applications—sport or team prints, activity/special-event prints, commercial print runs and press kits, point of sale, wall signage, and fine art displays.

TIPS FOR PHOTOGRAPHERS

Some general considerations for shooting or selecting images to be printed on ENDURA Metallic Paper:

- Bright colors particularly reds, oranges and yellows, look exceptional with this paper.
- Black-and-white images with high contrast produce an almost 3-D effect.
- Metallic objects or objects with a high gloss or sheen, such as a brightly colored silk dress, look extraordinary—virtually come to life on this paper.
- Appropriate lighting contrast is also a key factor in generating the most successful results utilizing this metallic effect.
- Work closely with a professional lab to optimize your results. A lab can help you explore more possibilities with your images and suggest other applications for producing greater impact using ENDURA Metallic Paper.

TIPS FOR LABS

EXPOSURE AND EMULSION BALANCING CONDITIONS

This paper is designed for use in both digital and optical printers.

Digital Printing

You can expose ENDURA Metallic Paper with many types of KODAK Digital Printers, such as:

- KODAK PROFESSIONAL RP 30 and SRP 30 Laser Printers
- KODAK PROFESSIONAL RP 50 LED Printer

- KODAK LED Digital Color Printer 20R and 20P
- KODAK PROFESSIONAL LED II Color Printer 20R
- LF CRT-based printers such as KODAK PROFESSIONAL Digital Multiprinter

ENDURA Metallic Paper is also compatible with other manufacturers' digital printers, only some of which we list here:

- CSI LIGHTJET 5000
- DURST EPSILON 30 LED
- DURST LAMBDA 131 Plus
- DURST LAMBDA 130
- DURST LAMBDA 76
- FUJI FRONTIER
- GRETAG Net
- POLIELETRONICA Laser Lab
- SIENNA Mileca
- ZBE CHROMIRA 30

For starting values, refer to KODAK Publication CIS-241, *Digital Printer Aims for KODAK PROFESSIONAL ENDURA Metallic Paper* (www.kodak.com/go/endura).

Note: The unique reflective characteristics of this paper may require one or two extra calibration runs.

If you cannot achieve a high D-max (240 230 225) aim with your printer due to printer, process, and product interactions, use a lower aim such as 230 220 215.

Optical Printing

ENDURA Metallic Paper prints slightly slower than KODAK PROFESSIONAL SUPRA ENDURA Paper. Use the same printing times as a starting point, and include a density series to determine your preferred exposure.

Expose the paper in automatic printers or enlargers equipped with tungsten or tungsten-halogen light sources or photo enlarger lamps. Set up and balance the printer/enlarger according to manufacturer's instructions.

If you don't know the recommended starting filter pack, start with 60M + 45Y to make a test print. Adjust your filtration as needed to produce a good print from a typical negative. Then use that filtration for trial exposures with other negatives.

PROCESSING

Like other ENDURA Media, this paper's emulsion set can be processed in KODAK EKTACOLOR RA Chemicals for Process RA-4 for predictable, low-cost production.

To process this paper in continuous or roller-transport processors, see KODAK Publication Z-130, *Using KODAK EKTACOLOR RA Chemicals*.

For information on processing this paper in trays or rotary-tube and drum processors, see KODAK Publication J-39, *Tray, Drum, and Rotary-Tube Processing with KODAK EKTACOLOR RA Chemicals*. Both publications are available from www.kodak.com/go/photochemicals.

Note: Although Kodak has not recommended Process RA-2SM for professional media, you may find the results acceptable for certain applications. Test the media to determine acceptability, as this process may provide warmer results than desired.

Replenishment rates are similar to those for KODAK PROFESSIONAL SUPRA ENDURA Papers.

POST-PROCESS TREATMENTS

Mounting Prints

You can mount prints with dry mounting tissue. The temperature across the heating platen should be 82 to 93°C (180 to 200°F). Preheat the cover sheet that you use over the face of the print to remove moisture. Apply pressure for 30 seconds, or up to 3 minutes in the case of a thick mount.

Caution: Use drying temperatures below 93°C (200°F) to avoid damaging prints. *Underdrying* can produce tackiness that tends to make paper stick when it is wound into rolls before cutting. *Overdrying* can cause curl and complicate transport in print finishing. Do not ferrotype this paper—its surface dries to a natural gloss without ferrotyping.

Note: Images on ENDURA Metallic Paper may shift toward a pink balance after heated to excessive temperatures, but will return to normal color balance when completely cooled to room temperature.

You can also use contact-type adhesive or cement for cold-mounting.

STORAGE AND DISPLAY

ENDURA Metallic Paper provides improved dye stability and print longevity for prints displayed under typical home lighting conditions (i.e., 120 lux for 12 hours a day) and typical home dark storage conditions (i.e., 20 to 23°C [68 to 73°F] and 50% humidity).*

A slightly convex mount or display will best demonstrate the metallic/pearlescent effect.

* In independent, long-term testing of ENDURA Media against the previous generation of KODAK PROFESSIONAL Media, ENDURA Media was found to exhibit significantly superior image stability in terms of color balance and dye fade. These independent results confirmed the internal Kodak testing and, in fact, revealed that Kodak's published estimates concerning image longevity were conservative.†

Based on product application including specific light levels and temperature conditions; testing conducted as specified in ANSI Publication IT9.9-1996 and ISO Publication 10977, "Stability of Colour Photographic Images -Methods for Measuring," including use of illustrative endpoint criteria of 30% dye fade.

† The Image Permanence Institute at the Rochester Institute of Technology.

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ADDITIONAL TIPS FOR LABS

- Due to the unique reflective characteristics of ENDURA Metallic Paper, it may require one or two extra calibration runs. If an extra calibration run is unsuccessful, it may require calibrating your device on SUPRA ENDURA Paper, and then replacing it with ENDURA Metallic Paper.
- Monitor the sharpness of your cutting equipment on a frequent basis. The effects of dull cutting blades are more noticeable with this paper than with traditional papers because of its tear-resistant characteristics.
- Most types of roll-based media exhibit some amount of curl, either toward the base side or toward the print side. The amount will vary based on media type and environmental conditions. Providing guidelines is not straightforward, as it may depend on the humidity in the lab environment. Keep humidity as close to 50% RH as possible, and maintain a temperature between 20 to 23°C (68 to 73°F).

Also, observe general guidelines to minimize curl effects since papers may curl more towards the core or end of the roll due to "roll memory."

When printing:

- If possible, adjust vacuum settings on printers.
- Adjust heater and dryer settings on printers to ensure flat media. Refer to your printer owners' manual for their recommendations.

During finishing:

- If possible, reduce the time between winding and cutting operations. Media should not remain rolled for extended periods of time.
- Reverse wind media when it is completely dry to counteract roll memory.

- Laminates will reduce the metallic effect.

SUMMARY

Whether you are a photographer or a lab, you constantly need to innovate and differentiate. ENDURA Metallic Paper can help you retain and stimulate additional areas of business for you and your clients.

Kodak is very interested in your comments, suggestions and questions regarding this product. Please contact your Kodak representative or distributor of KODAK PROFESSIONAL Products in your country to share these thoughts. In the U.S., you may also call the Kodak Information Center at 800-242-2424.

Digital & Film Imaging Systems
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