KODAK PROFESSIONAL POLYCONTRAST III RC Paper

NOTICE
KODAK PROFESSIONAL POLYCONTRAST III RC Paper is discontinued. Suggested replacements are dependent on location. • **KODAK PROFESSIONAL POLYMAX II RC Paper** offer similar features to POLYCONTRAST III RC Paper, but with improved detail in blacks and improved reproduction of the entire tonal range. • **KODAK POLYCONTRAST IV RC Paper** offers improvements compared with POLYCONTRAST III RC Paper especially increased detail in highlight areas.

KODAK PROFESSIONAL POLYCONTRAST III RC Paper is a fast, selective-contrast black-and-white enlarging paper. This paper yields high contrast at the upper end of the range produced with KODAK POLYMAX Filters. It is intended for commercial, industrial, news, aerial, and police photography. It is also useful for advertising displays, photofinishing, and other applications that call for a general-purpose black-and-white paper with a neutral-black image tone.

This paper has an incorporated developing agent. You can process it in roller-transport or continuous processors, or in trays.

FEATURES	BENEFITS
• White, medium-weight support with incorporated optical brightener	• Clean, crisp whites • Added brilliance
• Resin-coated, water-resistant base	• Rapid processing, fast drying, and minimum curl
• Specially coated on back	• Good writing surface and easy interleaving during tray processing

Base and Surface Characteristics

Symbol	Texture	Surface	Base Tint	Base Weight
F	Smooth	Glossy	White	Medium Weight
N		Semi-matt		
E	Fine-Grain	Lustre		

STORAGE AND HANDLING

Store paper in a cool, dry place (preferably at or below 21°C [70°F] and at a relative humidity of 30 to 50 percent). High temperature or high humidity may produce undesirable changes. Always rewrap unused paper in its original packaging (the outer box as well as the bag) to protect it from light and moisture. Avoid or shield the paper from exposure to radioactivity or x-rays.

DARKROOM RECOMMENDATIONS

Use a KODAK OC Safelight Filter (light amber) in a suitable safelight lamp with a bulb of 15 watts or less at least 1.2 metres (4 feet) from the paper. Minimize safelight exposure to avoid unwanted quality changes. **Be especially careful** if you use other types of safelights.

See KODAK Publication No. K-4, *How Safe is Your Safelight?,* for information on safelight testing.

Note: Do not use a KODAK OA Safelight Filter (greenish yellow).

EXPOSURE

Light Sources

This paper is designed primarily for use with tungsten or tungsten-halogen enlarging lamps. You can use other light sources in *addition* to the filters for contrast control. Suggested starting-point filtration for other light sources is listed below. Make a test print to determine the optimum filtration for each light source.

Enlarging Lamp	KODAK Color Compensating Filter or KODAK Color Printing Filter
Cool white fluorescent	CC40Y or CP40Y
Daylight fluorescent	CC70Y or CP70Y

Filters

Use KODAK POLYMAX Filters for contrast control. The following tables list the paper speeds and ranges with POLYMAX Filters.

F Surface Paper Speed

KODAK POLYMAX Filter		No Filter	-1	0	1/2	1	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5+
KODAK POLYMAX IR Processor	ISO Paper Speed	500	250	250	250	250	250	250	250	250	250	100	100	100
	ISO Paper Range*	100	>150	150	130	120	120	110	100	90	80	70	60	50
KODAK PROFESSIONAL DEKTOL Developer	ISO Paper Speed	500	250	250	250	250	250	250	250	250	250	125	125	125
	ISO Paper Range*	100	>150	150	130	120	110	100	100	90	80	70	60	50

N Surface Paper Speed

KODAK POLYMAX Filter		No Filter	-1	0	1/2	1	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5+
KODAK POLYMAX IR Processor	ISO Paper Speed	500	250	250	250	250	250	250	250	250	250	100	100	100
	ISO Paper Range*	90	>130	130	120	110	110	100	100	80	70	60	60	50
KODAK PROFESSIONAL DEKTOL Developer	ISO Paper Speed	500	250	250	250	250	250	250	250	250	250	125	125	125
	ISO Paper Range*	90	>140	140	120	110	110	90	90	80	70	60	50	50

E Surface Paper Speed

KODAK POLYMAX Filter		No Filter	-1	0	1/2	1	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5+
KODAK POLYMAX IR Processor	ISO Paper Speed	500	250	250	250	250	250	250	250	250	250	100	100	100
	ISO Paper Range*	100	>150	150	130	120	120	110	100	90	80	70	60	50
KODAK PROFESSIONAL DEKTOL Developer	ISO Paper Speed	500	250	250	250	250	250	250	250	250	250	125	125	125
	ISO Paper Range*	100	>150	150	130	120	120	110	100	90	80	60	50	50

*These numbers indicate the relative ISO ranges of different contrasts produced with KODAK POLYMAX Filters.The ranges were calculated from the log exposure ranges of the paper. You can use them as guides for selecting the appropriate paper contrast for the density range of a specific negative. When the ISO range of the paper approximately equals 100 times the density range of the negative, the contrast of the print will usually be satisfactory. (For convenience, the log exposure ranges have been multiplied by 100 so that the ISO ranges are expressed as whole numbers.) The contrast you choose will also depend on the nature of the subject.

PROCESSING

Machine Processing

For rapid processing of this paper, you can use roller-transport and continuous processors that use conventional developers.

Processor	Developer	Fixer
Roller-Transport, Rack-and-Tank, Continuous	KODAK PROFESSIONAL POLYMAX RT Developer and Replenisher	KODAK PROFESSIONAL POLYMAX RT Fixer and Replenisher OR KODAK PROFESSIONAL Rapid Fixer, Solution A

Tray

Tray process with continuous agitation at 20°C (68°F), using the appropriate dilution and development time recommended in the table.

KODAK PROFESSIONAL Chemical	Dilution (chemical: water)	Time (min:sec)	Capacity (8 x 10-inch Prints per gal/L)
Developer— 20°C (68°F)			
DEKTOL (powder)	1:2	1:00	120/32
DEKTOL (liquid)*	1:9	1:30	120/32
POLYMAX T	1:9	1:30	120/32
Stop Bath—18 to 24°C (65 to 75°F)			
Indicator	1:63	0:10	80/20†
EKTAFLO	1:31	0:10	80/20†
Fixer (single bath)‡— 18 to 24°C (65 to 75°F)			
Non-hardening fixer (for general printing and for toning):			
Rapid Fixer, Solution A (do not use Solution B)	1:7	2:00	100/26
Hardening fixers (for general printing and continuous-type processors)§			
KODAK Fixer	—	2:00	100/26
POLYMAX T	1:7	2:00	100/26
Rapid Fixer (Solution A and B)	1:7	2:00	100/26
KODAFIX Solution	1:7	2:00	100/26
Wash—10 to 30°C (50 to 86°F)			
	—	4:00	—

*Not available in all countries.
†Discard the solution when color changes to a purplish blue.
‡To increase capacity, use two fixing baths.
§Using a hardening fixer makes toning less efficient. For the same amount of processing time, you'll see less of a toning effect.

Developing

Immerse prints face up, flexing the paper so the entire surface gets wet as it goes into the developer. Drain prints for the last 5 seconds before immersing in stop bath.

Stop Bath

Bathe prints for at least 10 seconds at 18 to 24°C (65 to 75°F) with continuous agitation in KODAK PROFESSIONAL EKTAFLO Stop Bath, KODAK PROFESSIONAL Indicator Stop Bath, or 48 mL KODAK 28% Acetic Acid and water to make 1 L.

With EKTAFLO or Indicator Stop Bath, discard the solution when the color changes to purplish blue. Change Acetic Acid and water stop bath after approximately twenty 8 x 10-inch prints per litre (eighty 8 x 10s per gallon).

Fixing

Fix prints at 18 to 24°C (65 to 75°F) with frequent agitation. Fix for 2 minutes if you use a single bath. If you use two fixing baths, fix prints for 1 minute in each bath, draining for 5 seconds between baths.

Proper fixing is important. Underfixing will leave residual silver halide in the emulsion, which will darken or stain with exposure to light. Overfixing will make washing more difficult, and may slightly bleach the print.

Note: Using a hardening fixer will enhance surface durability. However, using a hardening fixer makes toning less efficient. For the same amount of processing time, you'll see less of a toning effect.

Washing

Wash for at least 4 minutes in running water at 10 to 30°C (50 to 86°F), interleaving the prints carefully and frequently.

Note: Avoid prolonged fixing or washing times to realize all advantages of this water-resistant base, and to minimize physical damage, edge penetration, and curl.

Drying

Air-dry at room temperature after removing surface water with a clean, lintless blotter or cloth, or a soft squeegee or sponge. You can also dry prints with warm air, or use a dryer intended for resin-coated papers.

Do not ferrotype prints made on this paper. You can use ferrotype dryers (glazers) at temperatures below 88°C (190°F) if you squeegee the prints and feed them base side toward the drum surface.

POST-PROCESS TREATMENTS

Except for treatment with a toner solution, post-processing treatments generally don't improve the image stability of prints on Kodak black-and-white papers. Some treatments—for example, laminating—provide physical protection. Some may actually have an adverse effect on prints. The effects of post-processing treatments on prints vary widely with the type of treatment and the manner in which the treatments are applied.

Toning

Treatment with a toner extends the life of prints that may be exposed to oxidizing gases or subjected to adverse storage or display conditions. KODAK PROFESSIONAL Toners will protect prints whether or not they produce a tone shift.

Processing	Tone Shift with KODAK PROFESSIONAL Toners*			
	Full	Full to Moderate	Slight	None†
KODAK POLYMAX IR Processor	Brown, Sepia II Warm	Sepia	Rapid Selenium	—
Tray (DEKTOL Developer [1:2])	Sepia II Warm or Brown	Sepia	Rapid Selenium (1:3, 1:9)	Rapid Selenium (1:20)

*Print tone when compared to an untoned print.
†Provides print protection without a tone change.

For more information on toning, see KODAK Publication No. G-23, *Toning KODAK Black-and-White Materials*. It explains the technique of toning, and describes Kodak toners and their effects on Kodak black-and-white papers and films.

Retouching

You can use liquid dyes, colored or graphite pencils, dry dyes, and opaque to retouch prints on Kodak black-and-white papers.

Use dry dyes, such as KODAK Retouching Colors, to make large-area corrections. Use liquid dyes, pencils, or opaque to make fine corrections—such as eliminating spots, scratches, and reflections—or to outline and accentuate details. Although KODAK Liquid Retouching Colors are intended primarily for color prints, you can use the neutral dye to retouch black-and-white prints, or mix the colored dyes to match toned black-and-white prints.

For more information on retouching, see KODAK Publication No. O-10, *Retouching Black-and-White Negatives and Prints.*

Lacquering and Laminating

Use lacquers with caution. If you choose to lacquer your prints, select a lacquer that is specifically intended for photographic applications.

Apply multiple light coats rather than a single thick coat of lacquer. Never allow a lacquered print to come into contact with the glass in a picture frame, because it may stick to the glass.

Laminating is really a variation on lacquering. Instead of a very thin polymer layer, laminating produces a much thicker layer. Laminates may contain UV absorbers, plasticizers, and matting agents. They provide protection against fungus and bacterial attack, moisture and dirt in the air, and physical abrasion.

Mounting

Mounting provides rigidity, helps prevent wrinkling, and gives some physical protection to prints.

For long-term keeping, it is best not to use adhesives or dry-mounting tissue. The best mounting method is to use plastic corners or hinge the print by using Japanese rice paper and water-soluble wheat paste. Do not use rubber cement, contact cement, or animal glue. If you must use a liquid adhesive, use starch paste or polyvinyl chloride.

If you choose to dry-mount your prints, use acid-free, pH-buffered, conservation-quality mounting board and conservation-quality mounting tissue.

Note: Mounting glossy RC prints with dry-mounting tissue can introduce an "orange peel" effect.

An overmat, or window mat, will help protect a print from abrasion, keep the emulsion away from the glass in a frame, and provide a neutral or complementary field. Be sure to use conservation-quality mat boards and backing and non-reactive framing materials.

For more information on laminating, lacquering, and mounting, see KODAK Publication No. E-67, *Finishing Prints on KODAK Water-Resistant Papers*, or No. F-35, *Protecting and Displaying Black-and-White Prints.*

MORE INFORMATION

Kodak has many publications to assist you with information on Kodak products, equipment, and materials.

The following publications are available from Kodak Customer service, from dealers who sell Kodak products, or you can contact Kodak in you country for more information.

E-30	*Storage and Care of KODAK Photographic Materials—Before and After Processing*
E-67	*Finishing Prints on KODAK Water-Resistant Papers*
E103BP	*KODAK PROFESSIONAL Black-and-White Papers Matrix*
E103CP	*Chemicals for KODAK PROFESSIONAL Black-and-White Papers Matrix*
F-2	*Pathways to Black and White*
F-35	*Protecting and Displaying Black-and-White Prints*
G-23	*Toning KODAK Black-and-White Materials*
J-5	*KODAK PROFESSIONAL POLYMAX T Developer and KODAK POLYMAX T Fixer*
K-4	*How Safe is Your Safelight?*
O-10	*Retouching Black-and-White Negatives and Prints*

For the latest version of technical support publications for KODAK PROFESSIONAL Products, visit Kodak on-line at:
http://www.kodak.com/go/professional

If you have questions about KODAK PROFESSIONAL Products, call Kodak.
In the U.S.A.:
1-800-242-2424, Ext. 19, Monday–Friday
9 a.m.–7 p.m. (Eastern time)
In Canada:
1-800-465-6325, Monday–Friday
8 a.m.–5 p.m. (Eastern time)

Note: The Kodak materials described in this publication for use with KODAK PROFESSIONAL POLYCONTRAST III RC Paper are available from dealers who supply KODAK PROFESSIONAL Products. You can use other materials, but you may not obtain similar results.

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