

	be Scoute lescribe t	days Opportunities will be posted for 30 days unless specified he item application/ the end use of item.* Provide the item number if applicable: (N95 Mask vs Protective Mask).
Supplier	Scouting	Number (NIST MEP use)
Scouting TECHNICAL INFORMATION:	1. Supplier Information	a. Type of supplier being sought* Manufacturer
ION:	2. Summary of Technical Specifications and Performance Requirements:	a. Describe the manufacturing processes (elaborate to provide as much detail as possible).* b. Provide dimensions / size / tolerances / performance specifications for the item.* c. List required materials needed to make the product, including materials of product components.*



		d. Are there applicable certification requirements?* \square Yes \square No Please explain
	į2	Please explain
	Su	
	Summary of Technical Specifications and Performance Requirements cont:	
	ary	e. Are there applicable regulations?* Yes No
	of T	Please explain
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	inic:	
	hnical Specification: Requirements cont:	
	nen	f. Are there any other standards, requirements, etc.?* Yes No
	fica:	Please explain
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	san	g. Additional Comments: Is there other information that would impact the item's performance or
	_d ₽	usefulness? Please explain.
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	- ω	3a. Estimated potential business volume (i.e., # Units Per Day, Month, Year) *:
BUSINESS INFORMATI	3. Volu Pricing	3d. Estillated potential business volume (i.e., π omits rei bay, iviontii, real).
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NFO.	and	b. Estimated target price / unit cost information (flexible and negotiable not accepted) *:
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	4.	a. When is it needed by? (Immediate, 30 Days, 6 months, etc.)*
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	Delivery Requirements:	b. Describe packaging requirements (i.e., individually/group packaging)*
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ĺ	ე ე	Is there other information you would like to include?
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KODAK PROFESSIONAL ENDURA Transparency and Clear Display

Kodak alaris

TECHNICAL DATA / DISPLAY MATERIALS

October 2018 • E-4038

KODAK PROFESSIONAL ENDURA Transparency Display Material and KODAK PROFESSIONAL ENDURA Clear Display Material are designed for making large backlit display transparencies from color negatives or internegatives. They are ideal for producing tradeshow displays, point of purchase materials, and indoor transit displays for airports and subways.

Both materials feature a strong, tear-resistant 7-mil ESTAR Thick Base with good splicing characteristics. KODAK PROFESSIONAL ENDURA Transparency Display Material has a white-pigmented base, which provides built-in diffusion for use on illuminators without built-in diffusers. KODAK PROFESSIONAL ENDURA Clear Display Material is a clear-base material designed for use on illuminators that have built-in diffusers.

These products can be exposed both digitally and optically.

Use KODAK EKTACOLOR Chemicals for Process RA-4 to process these materials. KODAK EKTACOLOR Digital Developer Replenisher RT is the recommended developer for processing, since higher contrast and D-max will be obtained than with KODAK EKTACOLOR RA Developer Replenisher RT. See Kodak Alaris Publication CIS-269 for additional information. With appropriate changes in transport speed and solution replenishment rates, this product can be intermixed with other KODAK PROFESSIONAL ENDURA Papers and Display Materials.

FEATURES	BENEFITS
• Ease of use	Fewer calibration cycles
New emulsion technology	 High quality prints and high productivity Excellent latent image keeping from 5 seconds to 24 hours Consistent results and easier print matching across digital and optical systems
Reduced text fringing	Sharper text that remains neutral regardless of D-max
Advanced color coupler technology	 Brighter, more saturated colors, especially blues, cyans, purples, yellows and greens Wider color gamut Accurate color reproduction, consistent results Deep, rich blacks; uniform high D-max Higher contrast for more vibrant prints
Same product fpr optical	Simplified inventory

FEATURES	BENEFITS
Robust processing characteristics	 Less sensitivity to process variations caused by image-density variations, bleach-fix contamination, and changes in product mix or processor utilization Simplified calibration Clean process; reduced processor maintenance Less sensitivity to bleach-fix pH Reduced operating costs
Reduced developer replenishment rates	Less effluentLess frequent mixingLower processing costsLower environmental impact
State-of-the-art image stability	Improved permanence for both light and heat exposureLong-lasting image performance
Antihalation coating on non-emulsion side	Improved sharpnessHigher readability
Improved post-process robustness	No color shift with overlaminates and adhesives

and digital workflows

STORAGE AND HANDLING

Store unprocessed paper between 40 and $75^{\circ}F$ (4 and $24^{\circ}C$) in the original sealed package. High temperatures or high humidity may produce unwanted print quality changes.

To avoid moisture condensation on material that has been refrigerated, allow it to warm up to room temperature before opening the package. For best results, remove the material from cold storage the day before you use it, or allow it to warm up for the appropriate time from the following table:

Warm-Up Times (Hours) to Reach Room Temperature of 21°C (70°F)			
Size	From a Storage Temperature of		
(in. x ft)	-18°C (0°F)	2°C (35°F)	13°C (55°F)
20 x 100	8 hours	7 hours	4 hours
30 x 100	10 hours	8 hours	5 hours
40 x 100	11 hours	9 hours	6 hours
50 x 100	12 hours	10 hours	7 hours

Dimensional Stability

Thermal Coefficient of Expansion (length, width)	0.001 % / degree F (0.0018% / degree C)
Humidity Coefficient of Expansion (length, width)	0.0008 % / % RH

DARKROOM RECOMMENDATIONS

Handle these materials carefully to avoid kink marks and fingerprints.

Handle these materials in total darkness. Be sure that your printing and processing darkrooms are lightlight. Eliminate any stray light from equipment in the darkroom.

Note: Using a safelight will affect your results. These materials are very sensitive to safelights; sensitometric shifts can occur before you observe any changes in D-min.

EXPOSURE

Optical Exposure

There are two basic methods for exposure:

- A single "white-light" exposure using cyan, magenta and yellow filters.
- Three successive exposures through red, green and blue filters.

White-Light Exposure Method

Starting Filter Pack		
Transparency	40M + 40Y	
Clear	35M + 30Y	

If the enlarger does not have dichroic filters for the filter pack, use KODAK Color Printing Filters (Acetate). Use the CP Filters only between the light source and the negative. This way, any number of filters can be used between the light source and the negative. If cyan filtration is necessary, use filters identified by the suffix "-2," as in "CP10C-2."

If a starting filter pack is not available, make a first test transparency with the filter pack recommended above for KODAK PROFESSIONAL Films. Since light quality, optical components, filters, and dial settings may vary considerably between enlargers, this filter pack is only a starting point. Adjust the exposure to produce a satisfactory density. If the color balance is not satisfactory, try a different filter or combination of filters. Once a good transparency has been made from a typical negative, use the same "filter pack" for trial exposures with other negatives.

Tricolor Exposure Method

To use this method, a timer is needed to time three different exposures without disturbing the enlarger or easel. Use a timer that can be read or set in the dark. The recommended KODAK WRATTEN Gelatin Filters are the No. 25 (red), No. 99 (green), and No. 47B (blue). Install a heat-absorbing glass near the light source. With a Photo Enlarger Lamp No. 212 or No. 302, operated at 115 volts, typical times at f/8 for a 6X enlargement from a normal color negative are:

Times for an Aperture Setting of f/8 for 8 x 10 Enlargement of a 120 Size KODAK PROFESSIONAL PORTRA 160NC Film Negative			
Filter	Transparency	Clear	
Red	1.6 seconds	4.6 seconds	
Green	1.8 seconds	7.2 seconds	
Blue	3.8 seconds	11.3 seconds	

Digital Exposure

These materials may be exposed to the following types of digital printers (but not limited to):

- Durst Lambda and Epsilon Printers
- Oce Lightjet Printers
- Polieletronica LASERLab Printer
- ZBE Chromira Printer

Printer Calibration Data

KODAK PROFESSIONAL	Using KODAK EKTACOLOR Digital Developer Replenisher RT		Using KODAK EKTACOLOR RA Developer Replenisher RT	
ENDURA Display Material	D-max	Basic Calibration (Starting Values)	D-max	Basic Calibration (Starting Values)
Durst Lambda Printer (at 200 dp	oi)	<u>.</u>		
Transparency	R = 350 G = 360 B = 350	Y = 78 M = 62 C = 0 D = 93	R = 320 G = 325 B = 325	Y = 90 M = 53 C = 0 D = 89
Clear	R = 300 G = 320 B = 305	Y = 94 M = 60 C = 0 D = 58	R = 275 G = 280 B = 275	Y = 103 M = 53 C = 0 D = 65
Durst Lambda Plus Printer (at 20)0 dpi)	<u>.</u>		
Transparency	R = 350 G = 360 B = 350	Y = 78 M = 62 C = 0 D = 93	R = 320 G = 325 B = 325	Y = 90 M = 53 C = 0 D = 89
Clear	R = 300 G = 320 B = 305	Y = 73 M = 73 C = 0 D = 58	R = 275 G = 280 B = 275	Y = 103 M = 53 C = 0 D = 65
Durst Epsilon Printer (at 200 dp	i)			1
Transparency	R = 310 G = 310 B = 310	Y = 0.195 M = 0.224 C = 0.0 D = 0.722	R = 295 G = 295 B = 295	Y = 0.195 M = 0.224 C = 0.0 D = 0.722
Clear	R = 265 G = 270 B = 265	Y = 0.277 M = 0.350 C = 0.0 D = 0.398	R = 250 G = 255 B = 250	Y = 0.277 M = 0.350 C = 0.0 D = 0.398

Oce Lightjet 5000, 430, and 500XL calibration data:

Calibration targets must be downloaded from the Oce Imaging ftp site, http://www.cymbolic.com.

PROCESSING

KODAK EKTACOLOR Chemicals for Process RA-4 are required. For information on using EKTACOLOR Digital Developer Replenisher RT, see Kodak Alaris publication CIS-269.

Process these materials in roller-transport processors capable of handling the ESTAR Thick Base. Processing recommendations are the same as for KODAK PROFESSIONAL Papers; however the speed must be adjusted to provide at least a 120 second development time and a 1 minute 50 second bleach/fix time. Replenishment rates are higher for these materials than for KODAK PROFESSIONAL Papers.

POST-PROCESS TREATMENTS

Retouching

KODAK PROFESSIONAL ENDURA Transparency and Clear Display Materials are easily spotted or retouched using standard retouching techniques. Do not use opaque retouching materials. See Kodak Alaris Publication E-70, Retouching Prints on KODAK EKTACOLOR and EKTACHROME Papers.

Laminating Prints

You can laminate prints made with KODAK PROFESSIONAL ENDURA Transparency and Clear Display Materials.

Note: Many municipalities have adopted as part of their local fire codes the National Fire Protection Association (NFPA) 701-1999 *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*, which applies to plastic films used for decorative or other purposes inside buildings. To comply with this standard, you must protect displays using any of these plastic films.

We strongly recommend that you take one or both of the following measures to protect all large displays, especially if the material is displayed in a public area:

- Fully enclose the materials in a light box or an illuminator.
- Frame and laminate the materials to a non-combustible mounting board, wall, glass, or1/ 4-inch or thicker polycarbonate, e.g., Lexan, support.

Other standards covering the burning characteristics of these products may apply to markets outside the U.S. Check with the appropriate local agency. Do not use these materials as backdrop displays in theaters.

For more information, see CIS-37, Combustion of KODAK Films, Resin-Coated Photographic Papers, and Print and Display Materials.

VIEWING

These materials are intended specifically for transmission viewing. When the transparency is viewed by reflected light, it should appear darker than a normal reflection print.

The degree of density will depend on the amount of light behind the transparency. Too much light will adversely affect the transparency quality by reducing the D-max and shadow densities excessively, resulting in a low-contrast image. With some illuminators, it may be necessary to use some neutral density or reduce the number of bulbs.

Color balance of the display transparency will depend on the color of the light source. A Color Rendering Index (CRI) of 90 or higher generally will give acceptable results. For best results, use cool white deluxe fluorescent bulbs.

For critical evaluation, use an illuminator that meets ANSI Standard PH2.30-1985.

KODAK DISPLAY MATERIAL TESTS FOR FLAMMABILITY

NFPA 255: Standard Test Method for Surface Burning Characteristics of Building Materials. The test method developed under this standard is also known as the ASTM E 84 Test and is equivalent to Underwriters Laboratories UL723 and Uniform Building Code UBC No 8.1.

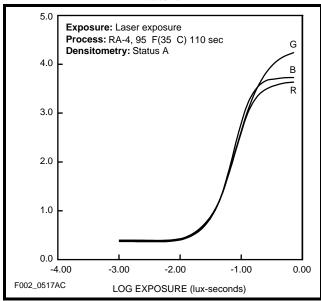
NFPA 701: Standard Methods of Fire Tests for Flame Propagation of Textiles and Films (free hanging materials).

The ASTM E 84 test results for KODAK PROFESSIONAL ENDURA Transparency and Clear Display Material are as follow:

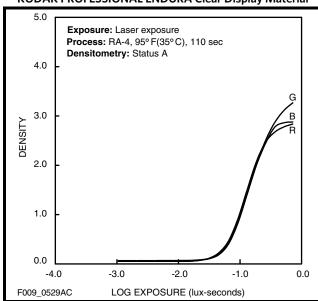
- Flame Spread Index (FSI) =10
- Smoke Developed Index (SDI) = 70
- Overall Test Classification = A

CURVES

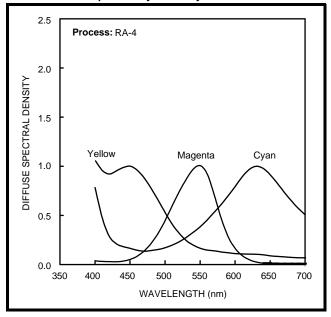
Characteristic Curves: KODAK PROFESSIONAL ENDURA Transparency Display Material



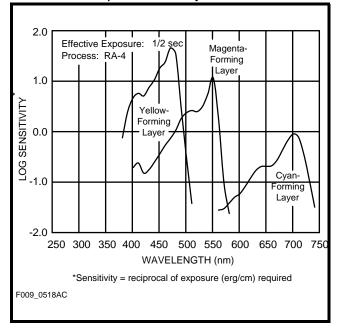
Characteristic Curves: KODAK PROFESSIONAL ENDURA Clear Display Material



Spectral-Dye-Density Curves



Spectral-Sensitivity Curves



NOTICE: The sensitometric curves and under the conditions of exposure and p production coatings, and therefore do n photographic material. They do not rep met by Kodak Alaris. The company rese characteristics at any time.

MORE INFORMATION

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

Additional information is available on the Kodak Alaris website.

The following publications are available from dealers who sell Kodak Alaris products, or you can contact your Kodak Alaris representative in your country from more information.

E-30	Storage and Care of KODAK Photographic Materials—Before and After Processing
E-70	Retouching Prints on KODAK EKTACOLOR and EKTACHROME Papers
E-190	KODAK PROFESSIONAL PORTRA Films
E-71	Retouching Color Negatives
E-176	Post-Processing Treatment of Color Prints—Effects on Image Stability
J-39	Tray, Drum, and Rotary-Tube Processing with KODAK EKTACOLOR RA Chemicals
K-4	How Safe is Your Safelight?
Z-130	Using KODAK EKTACOLOR RA Chemicals

For the latest version of technical support publications for KODAK PROFESSIONAL Products, visit: www.kodakalaris.com/go/professional

Note: The Kodak Alaris materials described in this publication for use with KODAK PROFESSIONAL ENDURA Transparency and Clear Display Materials 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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KODAK PROFESSIONAL ENDURA Transparency and Clear Display Materials KODAK Publication No. E-4038 Revised 10-18



Kodak Professional Endura

Display Materials

OUTPUT MEDIA THAT'S EASY TO USE, IMAGE QUALITY THAT LASTS.



Image in display: © photocreative/Shutterstock

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Attention-Grabbing Appeal

KODAK PROFESSIONAL ENDURA Transparency and ENDURA Clear Display Materials create eye-catching displays. These colorful true photo-quality display materials deliver what your customers want while meeting your production needs. ENDURA Display Materials can help your business adapt to changing market and technology needs. They set new benchmarks for quality, productivity, and image stability for photographic (AgX) transparency output media.

ENDURA Transparency Display Material is a translucent-base color transparency material for use on illuminators without built-in diffusers. Use ENDURA Transparency Display Material for large displays (such as trade-show stands and booths), in-store point-of-purchase materials, and indoor transit displays (airports, subways, etc.).

ENDURA Clear Display Material is a clear-base color transparency material for use on illuminators with built-in diffusers. Use ENDURA Clear Display Material for similar backlit displays such as advertising/point-of-sale, as well as promotions, lobbies, and office space decor.

For high-performance photo-quality backlit displays featuring—

- Bright, saturated colors with deep intense blacks for extra impact
- Superb detail from highlights to shadows and exceptionally sharp text
- Low D-min for clean whites
- Superior process robustness and handling for improved lab consistency
- Dependable, exceptional display performance for a variety of applications
- State-of-the-art image stability* for long-lasting displays

Kodak Professional Endura

Display Materials

Features	Benefits
State-of-the-art emulsion technology	 High-quality prints and high productivity Consistent image quality and easier print matching across digital and optical systems Sharp, neutral text Excellent matching of optically or digitally exposed display materials Reduced or simplified inventories
Robust processing characteristics	 120-second development time Clean process; low processor maintenance Improved productivity Excellent handling characteristics Less waste due to remakes
Reduced developer replenishment rates	 Low RA-4 processing costs Low developer replenisher rates for reduced waste and operating costs Low disposal cost Low environmental impact
Advanced color coupler technology	Deep, rich blacks Accurate, consistent results Retained image integrity
State-of-the-art dye technology for light and heat stability*	Significantly improved image performance to meet client needs and expectations

^{*}Based on product application including specific light levels and temperature conditions

Sizes Availability

ENDURA Transparency Display and ENDURA Clear Display Materials are available in sizes up to 182.9 cm (72 inches)† wide.

More Information

For technical information, look on www.kodakalaris.com/go/endura.

For information on the full range of PROFESSIONAL ENDURA Media Products for professional labs, visit **www.kodakalaris.com/go/prolab** or contact your contact your Kodak Alaris distributor.



Image in display: © Radius Images/OFFSET

© Bernd Jonas/Getty Images

Connect with Pro Quality.



[†] Sizes and availability may vary country to country—please contact your distributor of KODAK PROFESSIONAL Products.

Kodak Professional Endura Clear Display Material

Support d'afficharge Transluscent Transparency Display Materialien Material translúcido para display (sin difusores)

SP902 50.8 cm x 50 m 20 in. x 164 ft

PROCESS 01-23
BEFORE

4731 1594 021

Designed for digital and optical exposure.

Conçu pour le tirage optique et numérique.

Geeignet für digitale und optische Belichtung.

Diseñado para exposición tanto óptica como digital.

25°C+ 75°F 5°C+ 40°F



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