# KODAK EKTACHROME RADIANCE III Translucent Display Material

**—NOTICE—**

**Discontinuance of KODAK PROFESSIONAL EKTACHROME RADIANCE III Papers and Materials and KODAK EKTACHROME R-3 Chemicals**

Alternative options for image capture and output have gradually eliminated the need for PROFESSIONAL EKTACHROME RADIANCE III Papers and Materials as well as chemicals for Process R-3. Therefore, dependent on individual country and market requirements, Kodak will discontinue these products as inventories are exhausted

Technology has made the option of scanning, manipulating, and outputting images directly to traditional color paper very popular, and photographers are increasingly using color negative film and digital cameras for image capture. Producing positive prints, even from transparencies, for image display no longer requires the use of RADIANCE Papers and Materials.

Information on Kodak Professional Modular Digital Workflow Products (Equipment and Software) is available at **www.kodak.com/go/digitalprolab**

Thank you for using KODAK PROFESSIONAL Products.

KODAK EKTACHROME RADIANCE III Translucent Display Material is a versatile color reversal material designed for making large transparencies from opaque originals for backlit displays on illuminators that don't have built-in diffusers. It has a strong, durable 7-mil ESTAR Base with a translucent diffusing layer and is available in large-format rolls.

You can use EKTACHROME RADIANCE III Translucent Display Material for making color displays in process or repro cameras. The originals can be opaque copy, transparencies, or three-dimensional objects.You can also use it to make displays from slides/transparencies with an enlarger without first having to make internegatives.

Use KODAK EKTACHROME R-3 Chemicals to process this material.

| FEATURES | BENEFITS |
|---|---|
| • Easy setup and balancing | • Quicker turnaround times; improved productivity |
| • Gelatin layer on back | • Greater stability and reduced curl |
| • Fast printing speed | • Shorter exposure times |
| • Extremely low minimum density | • Cleaner, whiter whites |
| • Elimination of print-out | • Longer life under normal display conditions |

## SIZES AVAILABLE

Sizes and catalog numbers may differ from country to country. See your dealer who supplies KODAK PROFESSIONAL Products.

**Rolls**

| Size in. x ft / cm x m | Spec No. | CAT No. |
|---|---|---|
| 50 x 100 / 127 x 30.5 | 223 | 524 4009 |
| 50 x 100 / 127 x 30.5 | 224 | 524 3993 |
| 30 x 100 / 76.2 x 30.5 | 223 | 524 4017 |
| 20 x 100 / 50.8 x 30.5 | 223 | 524 4025 |
| 12 x 100 / 30.5 x 30.5 | 193 | 525 2630 |

## STORAGE AND HANDLING

Store unexposed material at 13°C (55°F) or lower in the original sealed package. High temperatures or high humidity may produce unwanted quality changes.

To avoid moisture condensation on material that has been refrigerated, allow it to completely warm up to room temperature before opening the package. For best results, remove the material from cold storage the day before printing, or use the warm-up times in the following table. For more storage information, see KODAK Publication No. E-30, *Storage and Care of KODAK Photographic Materials — Before and After Processing.*

| Warm-Up Times (in Hours) to Reach Room Temperature of 24 °C (75°F) | | | |
|---|---|---|---|
| Size | From a Storage Temperature of | | |
| | -18°C (0°F) | 2°C (36°F) | 10°C (50°F) |
| Rolls 12 in. (30.5 cm) or wider | 12 | 9 | 6 |

These times are based on a single package, positioned to allow free air circulation. After you remove the material you need, re-wrap the package and reseal it with tape to restore the moisture barrier.

Handle this material very carefully by the edges to avoid creases and fingerprints. This high-speed material is extremely sensitive to light; store and transport it in lighttight boxes.

## DARKROOM RECOMMENDATIONS

*Do not* use a safelight; handle unprocessed material in *total darkness.* Be sure that your darkroom is lighttight. Eliminate stray light from the enlarger head, repro camera lamps, timers, digital displays, etc.; even indicator lights and fluorescent tape can fog the material.

## EXPOSURE

### Using a Process (Repro) Camera

Expose the material from originals in a process or repro camera by using subtractive, tricolor-additive, or semi-additive methods. Although this material is balanced for exposure with a light source of 3000 to 3200 K, you can use any of the following light sources: pulsed xenon, incandescent, halogen, or flood lamps.

For a 1:1 ratio in a Klimsch Super M3 Repro Camera equipped with a halogen light source, use these trial-exposure conditions:

| Trial Exposure Using a Process (Repro) Camera to Expose KODAK EKTACHROME RADIANCE III Translucent Display Material | | |
|---|---|---|
| Printing Method | Filters | Exposure Time (in Seconds) for an Aperture Setting of *f*/22 |
| Subtractive | CC10C + CC10M | 7.0 |
| Additive (with KODAK WRATTEN Gelatin Filters) | No. 29 Red | 4.0 |
| | No. 61 Green | 11.0 |
| | No. 47B Blue | 22.0 |
| Semi-additive (with KODAK WRATTEN Gelatin Filters) | White Light | 3.0 |
| | No. 61 Green | 2.5 |
| | No. 47B Blue | 11.0 |

Because exposure times and filtration will differ with the equipment, the light source, the original, your process control, etc., use the tables only as a guide.

To maintain high image quality, control flare as much as possible. Flare consists of stray ambient light and scattered image light that might reach the material during exposure. Follow these procedures to control flare:

- Keep the lenses, mirrors, filters, and copyboard glass clean and free of scratches.
- Keep the interior of the camera clean.
- Use the additive or semi-additive printing method whenever possible to minimize the number of filters in the optical path.
- Adjust the copyboard lights and room lights so that neither the lights nor reflections from the copyboard glass fall on the camera lens.
- Mask the areas surrounding the original with black material.

### Using an Enlarger

You can also use this material to make overheads from slides with a conventional enlarger without first making internegatives. Equip the enlarger with a heat-absorbing glass, and use color-correction filters and a voltage regulator. If you are using color-compensating or color-printing filters, do *not* use cyan filters with the suffix "2" as in "CC10C-2" or "CP10C-2." You will not need an ultraviolet-absorbing filter.

To make a print 50.8 x 61.0 cm (20 x 24 inches) from a 35 mm slide, use the following adjustments for your trial exposure with a Durst Optimo AC Enlarger (dichroic filters, tungsten/halogen light source).

| Trial Exposure Using a Durst Optimo AC Enlarger to Expose KODAK EKTACHROME RADIANCE III Translucent Display Material | | |
|---|---|---|
| **Printing Method** | **Filters** | **Exposure Time (in Seconds) for an Aperture Setting of *f*/11** |
| Subtractive | CC50C + CC35M | 45.0 |

### Printing Digital Images

KODAK EKTACHROME RADIANCE III Translucent Display Material can be used as an output medium with digital images on a Durst Lambda Laser Imager. For optimum results, refer to your equipment manufacturer's recommendations for calibration information.

With a Durst Lambda 130 Imager:

| D-min | Basic Calibration (Starting Values) |
|---|---|
| R = 45<br>G = 47.5<br>B = 55 | Y = 44.8<br>M = 0<br>C = 84.4<br>D = 42.9 |

### Adjustment for Long or Short Exposures

Regardless of the type of light source and exposure time, there's little or no change in speed or contrast with EKTACHROME RADIANCE III Translucent Display Material.

| Exposure Time Range | Filter | Exposure Correction |
|---|---|---|
| 0.5 to 10 seconds | None | +1/3 stop |
| 10 to 100 seconds | CC05Y or equivalent | None |

## LATENT-IMAGE KEEPING

A very limited sensitometric variation is noticeable within the first few minutes after exposure. Beyond 5 minutes after exposure, there is no significant variation up to several days.

## PROCESSING

Use KODAK EKTACHROME R-3 or R-3 LU Chemicals to process this paper in continuous or roller-transport processors. In most instances, these materials will require increased replenishment rates. For specific processing instructions, see KODAK Publication No. Z-129B, *Using KODAK EKTACHROME R-3 Chemicals in Continuous and Roller-Transport Processors*, available from our website at *www.kodak.com/go/photochemicals*.

## DRYING

Drying conditions for this material are different from those used for EKTACHROME RADIANCE III Papers because of the gelatin anti-curl backing on the base side.

If you process the material in a continuous processor, use double-bladed squeegees following the final wash. Use a dryer that blows air on both sides of the material. If your dryer does not have that capability, you will need to increase the drying temperature. Remember to set the temperature back before processing paper again; otherwise, you may have transport problems and excessive curl in the paper.

## VIEWING

Evaluate transparencies under conditions similar to those you will use for viewing them. Remember that EKTACHROME RADIANCE III Translucent Display Material is designed for transmission viewing. When it is viewed by reflected light it will appear darker than a normal reflection print.

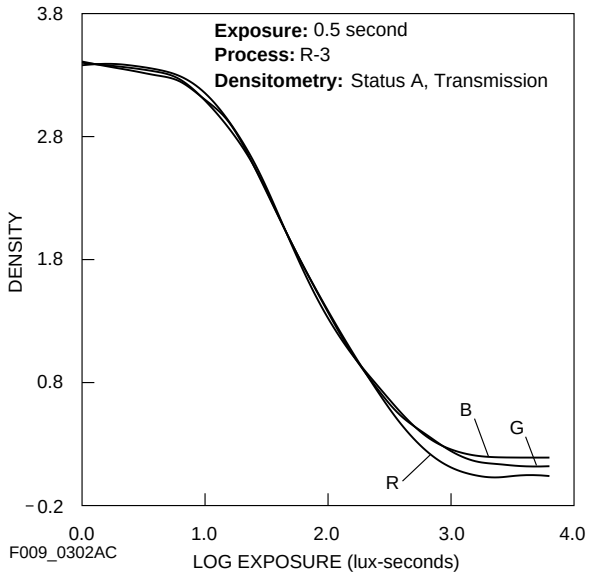
## DISPLAYING

Photographic dyes, like all dyes, can change with time and exposure to sunlight, ultraviolet radiation, excessive heat, and high humidity. To help prevent changes in photographic dyes, follow these guidelines:

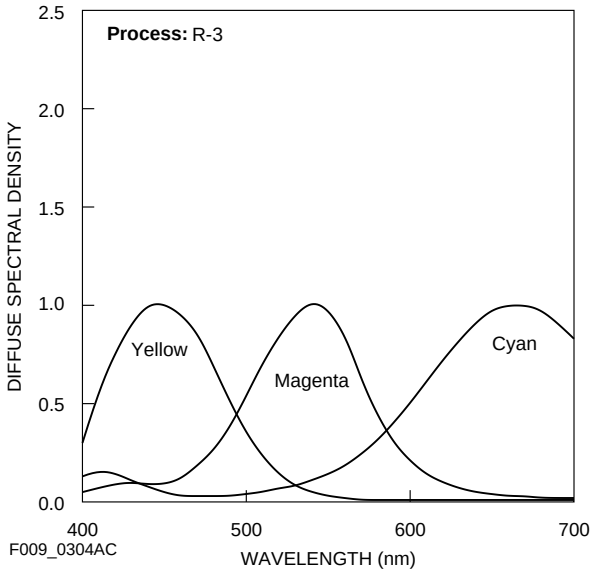
- Illuminate transparencies with tungsten light.
- Display transparencies by using the lowest light level consistent with your viewing needs.
- Maintain the temperature and humidity as low as possible.

## CURVES

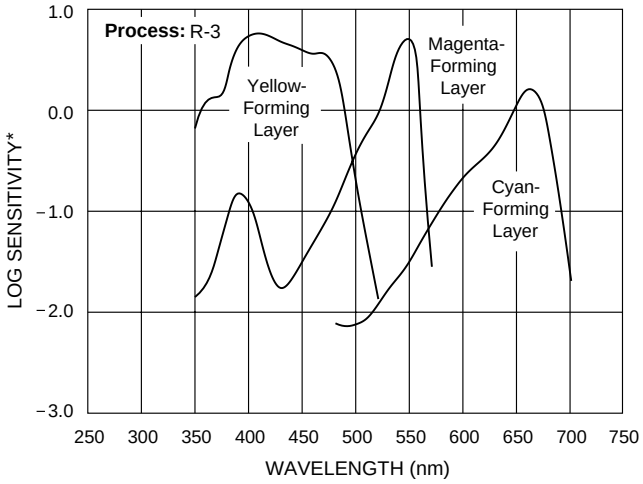
### Characteristic Curves




### Spectral-Dye-Density Curves




### Spectral-Sensitivity Curves




*Sensitivity = reciprocal of exposure (erg/cm$^2$) required to produce specified density

F009_0303AC

**NOTICE**: The sensitometric curves and data in this publication represent product tested under the conditions of exposure and processing specified. They are representative of production coatings, and therefore do not apply directly to a particular box or roll of photographic material. They do not represent standards or specifications that must be met by Eastman Kodak Company. The company reserves the right to change and improve product characteristics at any time.

## MORE INFORMATION

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

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

| | |
|---|---|
| E-30 | *Storage and Care of KODAK Photographic Materials—Before and After Processing* |
| E-1766 | *KODAK EKTACHROME RADIANCE III Paper* |
| E-1767 | *KODAK EKTACHROME RADIANCE III SELECT Material* |
| E-2410 | *KODAK EKTACHROME RADIANCE III Copy Paper* |
| E-2411 | *KODAK EKTACHROME RADIANCE III HC Copy Paper* |
| E-2412A | *KODAK EKTACHROME RADIANCE III Overhead Material* |
| E-2412B | *KODAK EKTACHROME RADIANCE III Clear Display Material* |
| Z-129 | *Using KODAK EKTACHROME R-3 Chemicals, Sixth Edition* |
| Z-129A | *KODAK EKTACHROME R-3 and R-3000 Chemicals* |
| Z-129B | *Using KODAK EKTACHROME R-3 Chemicals in Continuous and Roller-Transport Processors* |
| Z-129C | *Using KODAK EKTACHROME R-3000 and R-3 Chemicals in Batch-Type Processors* |
| Z-129E | *Monitoring and Troubleshooting Processes Using KODAK EKTACHROME R-3 and R-3000 Chemicals* |
| Z-129G | *Recovering Silver from Processes Using KODAK EKTACHROME R-3 Chemicals* |
| Z-129H | *Using KODAK EKTACHROME R-3 LU Chemicals in Roller-Transport Processors* |

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 EKTACHROME RADIANCE III Translucent Display Material 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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