**TI2407** **Revised 06-01**



# KODAK IMAGELITE ESY Scanner Film

# KODAK GEN 5 GAI Recording Film
# KODAK IMAGELITE IRF Scanner Film
# KODAK GEN 5 GIR Recording Film

## Features / Customer Product Specifications

KODAK IMAGELITE Scanner Films and Gen5 Films are designed for use with a wide range of today's electronic dot-generating color scanners, image recorders, imagesetters and contact-screen scanners. All are cut to "true-fit" scanner sizes to match dimensions specified by scanner manufacturers.
These products can be used in most conventional rapid-access developers, such as KODAK RA 2000 Developer and Replenisher. It should be possible to achieve satisfactory results in most other rapid-access type developers.
These films are coated on a dimensionally stable ESTAR Base with antistatic and surface properties to ensure dependable transport and handling behavior.

| | |
|---|---|
| ESY/GAI | • A high contrast, blue sensitive film for use on electronic-dot generation (EDG) color or monochrome scanners.<br>• Optimized for use with raster scanning output devices using an argon-ion laser (488 nm) as the exposing source. |
| IRF/GIR | • High contrast, infrared sensitive film.<br>• Recommended for use with scanners and recorders which use a laser diode, emitting light in the infrared area (780 nm).<br>• Wide exposure and development latitude. |

## Safelight Recommendations

Safe handling times at various safelight-to-film plane distances can be easily determined by exposing the films to a screen tint and using a card to step off various amounts of safelight exposure following image exposure. An increase in dot size or a change in density indicates excessive safelight exposure.
For information on performing safelight tests, see KODAK Publication No. K-4, "How Safe is Your Safelight?"

### KODAK IMAGELITE ESY Scanner Film/Kodak GEN 5 GAI Film

This film can be handled under amber or orange-yellow safelight illumination produced by the following sources:

- Deluxe cool-white fluorescent tubes filtered with dark amber safelight sleeves, such as the No. M58V19.055W (55 wall) sleeve available from Illumination Technology, Inc.

- EncapSulite KY or equivalent safelight.
- A 15-watt tungsten bulb filtered with Rohm and Haas Plexiglas amber 2422 material. This material can also be used to filter tungsten light that enters the work area through the windows. **Note:** Plexiglas amber 2422 material is not recommended for use with fluorescent tubes when KODAK IMAGELITE ESY Scanner Film is used.

Can also be handled under most orange or red safelight illumination sources. Keep the film at least 4 feet (1.2 metres) from the safelight.

### KODAK IMAGELITE Scanner Films IRF/KODAK GEN 5 GIR Recording Film

Use an EncapSulite T20/ND.75 available from EncapSulite International Ltd. (European Office: Frau Karia Hoppe, EncapSulite Sales, Postfach 900-328, 5 Koln 90 Germany) or equivalent. Keep the film at least 1.2 metres (4 feet) from the safelight. Do not expose the film to safelight illumination for longer than two minutes.

## Storage

Keep unexposed film and processed film in a cool, dry place, preferably at a temperature of 70¡F (21¡C) or lower and 50% RH. Process film as soon as possible after exposure.

## Exposure

Variations in equipment and in methods of use preclude exact exposure recommendations. Minor adjustments may have to be made in the light intensity of the exposing source when changing from one emulsion to another. The film will produce consistent results within a particular emulsion number after the optimum exposure has been determined by trial. Follow the exposure procedures recommended by the scanner manufacturer.

### Contact Applications Using ESY/GAI Film

Exposing with a variable-voltage point-source 100-watt tungsten-type lamp, operated at 8 volts, at a distance of 5 feet (1.5 metres) to provide 0.5 footcandles of illumination at the film plane, use a trial exposure of 7 seconds.

## Mechanized Processing

**NOTICE:** Observe precautionary information on product labels and on the Material Safety Data Sheets. This film can be processed in equipment with mechanical switches or ultrasonic sensors. More details are available from your Kodak Polychrome Graphics representative or distributor.
The following recommendations provide a range of acceptable developer times and temperatures. Higher development temperatures require shorter development times. Generally, times and temperatures near the center of the specified range will produce optimum results for the product.
However, criteria other than the development time may dictate the acceptable processing speed for any particular processor. Within the range given, a development time should be selected that will provide sufficient fixing, washing and drying of the product.
Use KODAK RA 2000 Developer and Replenisher (1:4 dilution) at 85-105¡F (30-40¡C) and a development range of 20-45 seconds. Replenishment rates are included in the table below:

| Average D-max Area | Basic Replenishment Rate |
|---|---|
| 10% | 0.12-0.15 mL/sq in. (185-235 mL/sq m) |
| 20% | 0.20 mL/sq in. (310 mL/sq m) |
| 50% | 0.30 mL/sq in. (465 mL/sq m) |
| 80% | 0.48 mL/sq in. (745 mL/sq m) |

| | |
|---|---|
| 100% | 0.60 mL/sq in. (930 mL/sq m) |

The starting point recommendation for development is 30 seconds at 95 degree F (35 degree C).
A 1:2 developer dilution ratio may be used when intermixing with KODAK 2000 films.
Use KODAK 3000 Fixer and Replenisher, Part A (1:3 dilution). The basic replenisher rate is 0.35 mL/sq. in. (545mL/m2). Part B (hardener) may be used at dilutions up to 1:40 (using *diluted* fixer) where film drying problems are being encountered, or where additional protection from post-process abrasions are required.
For batch type processors where ready-to-use solutions are needed, KODAK RA 2001 Developer and Replenisher and KODAK RA 3001 Fixer are recommended.
If utilization rate will provide at least one tank turnover per week, KODAK RA 2050 Developer Replenisher can be used with lower replenishment rates.

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# Data Sheet

## 1) Support

### Dimensionally stable support:

| | | |
|---|---|---|
| ESY | 4 mil<br>(0.004 in., 0.10 mm) | ESTAR Base |

## 2) Reciprocity

With recommended processing, the reciprocity speed change is negligible (1/3-photographic stop or less) within exposure range of 1/1000 second to 1 billionth second; there is no change in contrast.

## 3) Dimensional Stability

Dimensional stability is an all-inclusive term. In photography, it applies to size changes caused by changes in humidity and in temperature, and by processing and aging. The dimensional properties of ESTAR Base may vary slightly in different directions within a sheet; the differences that may exist, however, are not always aligned with the length and width directions:
Differences in size change between length and width should be within 10 percent of each other.

**Thermal Coefficient of Linear Expansion:**

| | |
|---|---|
| Unprocessed<br>or Processed | 0.001% per degree F<br>0.0018% per degree C |

**Humidity Coefficient of Linear Expansion:**

| | |
|---|---|
| Unprocessed | 0.0017% per % RH |
| Processed | 0.0016% per % RH |

**Processing Dimensional Change:**

| |
|---|
| Dependent on drying conditions |

## Graphs[1]

These graphs are designed to be printed in landscape mode. They will print properly on most printers in their current page set-up of 100%. However, some printers may require adjustments to the browser page set-up in order to have the graph print on a single 8 1/2 x 11 inch sheet of paper.
Using KODAK RA 2000 Developer and Replenisher (1:4)

### Characteristic

A. KODAK IMAGELITE ESY Scanner Film/Kodak GEN 5 GAI (3-96)
B. KODAK IMAGELITE IRF Scanner Film/Kodak GEN 5 GIR (2-94)

### Spectral Sensitivity

A. KODAK IMAGELITE ESY Scanner Film/Kodak GEN 5 GAI (4-96)
B. KODAK IMAGELITE IRF Scanner Film/Kodak GEN 5 GIR (2-94)

The Kodak products mentioned in this document may not all be available in all regions or countries. Contact your local distributor or sales representative for availability. Alternatively log a question with techassist@kpgraphics.com.

In the US, call the Kodak Information Center at 1-800-242-2424, ext. 724

The contents of this publication are subject to change without notice.



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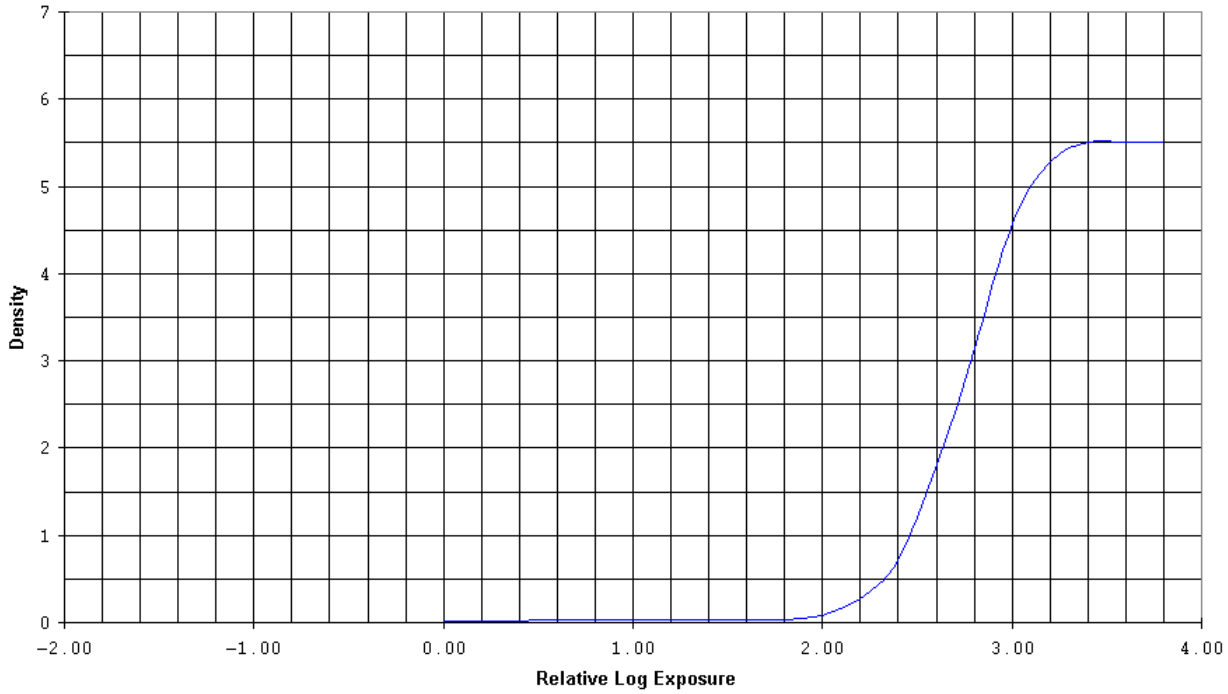
[1] NOTICE: While the data presented are typical of production coatings, they do not represent standards that must be met by Kodak Polychrome Graphics. Varying storage, exposure, and processing conditions will affect results. The company reserves the right to change and improve product characteristics at any time.

**TI2407C 02-94**
CHARACTERISTIC, For Publication

KODAK IMAGELITE IRF Scanner Film
IR Laser-Diode Exposure; KODAK RA 2000
Developer and Replenisher (1:4),
30 sec, 95 F (35 C); Diffuse visual



**TI2407F 04-96**
SPECTRAL SENSITIVITY, For Publication

KODAK IMAGELITE ESY Scanner Film
Effective exp 7 sec; KODAK RA 2000 Developer and Replenisher (1:4),
Diffuse visual; Density=0.60

**TI2407H 02-94**
SPECTRAL SENSITIVITY, For Publication

KODAK IMAGELITE IRF Scanner Film
5 sec exposure; KODAK RA 2000 Developer and
Replenisher (1:4), 30 sec, 35C (95 F); D=0.60> D-min