

RADIOMAT™ Medical X-Ray Film

Designed specifically for private practices and clinics

★ Distinctive products for a choice of spectral sensitivity and speed:

- **RADIOMAT™ G-Plus**
Full Speed Orthochromatic Film
- **RADIOMAT™ SG**
Full Speed Orthochromatic Film
- **RADIOMAT™ GL**
Full Speed Orthochromatic Latitude Film
- **RADIOMAT™ B-Plus**
Full Speed Blue Film
- **RADIOMAT™ M-Plus**
Half Speed Blue Film
- **RADIOMAT™ Duplicating Film**



- ★ Maximum image quality and consistency for general purpose radiology
- ★ Provides sharp detail and consistent performance in a wide variety of processing conditions
- ★ Compatible with existing generating equipment, cassettes and intensifying screens; requires little or no technique change
- ★ Maximum information with low patient dose
- ★ Cost-effective way to capture, display and store high-quality images



Please note: Box and labels may vary in colors & designs.
Film specifications may change without notice. Revised 07 2010

RADIOMAT™ Medical X-Ray Film Technical Data

State-of-the-Art Films for Traditional Radiology

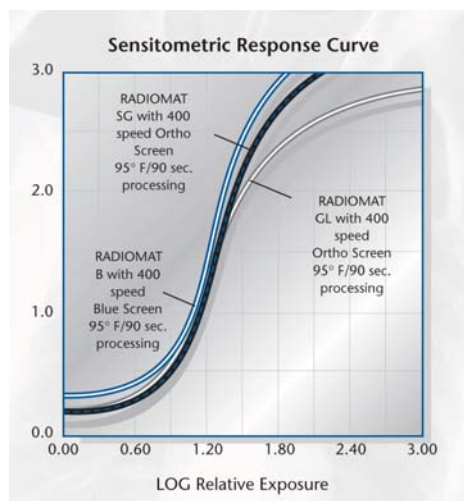
- ★ Each film type provides sharp detail and yields consistent performance in a wide variety of processing conditions. The films are compatible with your existing generating equipment, (cassettes and intensifying screens) with little or no technique change.
- ★ The Radiomat Orthochromatic Film products are available in both high contrast and latitude curve shapes, and achieve optimum quality performance when used with green emitting rare - earth screens.
- ★ The blue-sensitive films are available in both full speed and half speed rating categories.
- ★ All of the Radiomat films are coated on a blue-tinted polyester base and exhibit excellent handling characteristics, long shelf life, with low fog.

Safelight Requirements

The use of a GBX-2 (or equivalent) safelight filter is recommended. The filter should be utilized in conjunction with a 15 watt frosted bulb and positioned at least four feet from the unloading/loading area, and processor feed-tray.

Storage

Unopened, unexposed film should be stored at temperatures at or below 70 °F in a dry location, preferably between 30% and 50% relative humidity. Film should be protected from sources of ionizing radiation including x-ray scatter.



Processing

Radiomat Medical X-Ray Films are designed to be processed in automatic processors using "High Throughput", standard, or extended cycles. When used in the standard 90 second cycle, a temperature of 95 ° F is recommended. The films can also be processed manually. These robust films perform well in all quality developers and fixers.

Handling

Films should be handled by the edges; avoiding creasing, buckling and physical pressure. Avoid using hand lotions prior to handling films.

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RADIOMAT™ Medical X-Ray Film Product Availability

Film type by availability, size, box/case quantities

Size (Centimeters)	Size (Inches)	RADIOMAT G-Plus Green	RADIOMAT SG Green	RADIOMAT GL Latitude Green	RADIOMAT B-Plus Full Speed Blue	RADIOMAT M-Plus Half Speed Blue	RADIOMAT V Video Blue	RADIOMAT Duplicating
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Product Code

★ *NON-INTERLEAVED, Reclosable Box, 100 sheets per box, 5 boxes per case*

35 x 43	14 x 17	EZQF5	EK8DG	316GF	EBA21	3XA2A	345CS	LFLQG
35 x 35	14 x 14	EZQE3	EK8CE	----	EBA1Y	3XA17	----	----
30 x 35	----	EZQD1	EK8BC	----	EBAZW	3XAZ5	----	----
----	11 x 14	EZP6K	EK8JR	----	EBA7C	3XA7L	----	LFMRN
----	10 x 12	EZP5H	EK8HP	EA4NC	EBA6A	3XA5G	345DU	LFLPE
24 x 30	----	EAQAU	EK8AA	EA4OE	EBAYU	3XAY3	345FY	----
24 x 24	9.5 x 9.5	EZP9Q	EK8GN	----	EBA57	3XA4E	----	----
----	8 x 10	EZP2B	EK8FL	EA4PG	EBA45	3XA3C	345EW	LFLSL
18 x 43	7 x 17	EZP80	EK795	----	EBAXS	3XAX1	----	----
15 x 30	----	EZP4F	EK771	----	EBAUM	----	----	LFMVV
----	5 x 12	EZP3D	EK8EJ	----	EBA33	----	----	LFLRJ
18 x 24	----	----	EK783	----	EBAWQ	3XAWY	----	----
13 x 18	5 x 7	----	EK8KT	----	EBNU2	----	----	----

★ *NON-INTERLEAVED, Reclosable Box, Tri-fold 25 sheets per box, 5 boxes per case*

----	14 x 36	EZQMJ	EK8MX	----	EKYCB	EKYGK	----	----
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★ *NON-INTERLEAVED, Reclosable Box, Flat 25 sheets per box, 4 boxes per case*

----	14 x 36	EZQG7	EK8LV	----	EKYB8	EKYFH	----	----
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Relative Speed

Film	Intensifying Screen type	
	Ortho 100	Ortho 400
Radiomat SG	100	400
Radiomat GL	----	400

Film	CaWO4 (par speed)	Blue 800
Radiomat B-Plus	100	800
Radiomat M-Plus	----	400

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RADIOMAT™ Medical X-Ray Film Cross References

Film type by Manufacturers

RADIOMAT™	Agfa	Kodak	Fuji	Konica	3M
*RADIOMAT™ SG <i>Orthochromatic, high contrast</i>	CURIX® HT-G	CSG, T-MAT-G MXG, X-SIGHT G	---	MGX-SR MG-SR PPG	SE+ Ultra Detail Plus
*RADIOMAT™ B-Plus <i>Full speed blue, high contrast</i>	---	CSB/1, MXB X-Omat RP X-Omat K	RX	PPB Type A	Standard Blue
*RADIOMAT™ M-Plus <i>Half speed blue, high contrast</i>	CRONEX® 10T	CSB/.5 Ektamat G	RX-U	PB7 HB	---
*RADIOMAT™ GL <i>Orthochromatic wide latitude</i>	CURIX® HTL Plus	T-MAT-L X-SIGHT L	HR-L	MGL-SR	Ultimate 2000
RADIOMAT™ Video <i>Orthochromatic blue base</i>	SCOPIX® CR5B	Ektascan B/RA Ektascan B Ektascan M CRT7	MI-NC MI-NP (Med Speed) MI-NP (Hi Speed)	Type C Type Cn (notched) Type C-SR,	SE+
RADIOMAT™ Video <i>Orthochromatic, clear base</i>	SCOPIX® CR5C	Ektascan C Ektascan MC	MI-NC c MI-NP c (Med Speed)	Type CC Type Cc-SR Type CMc	---
RADIOMAT™ HN-B <i>Helium neon laser blue base</i>	SCOPIX® LT2B	Ektascan HN	LI-HM	LP-670D	---
RADIOMAT™ HN-C <i>Helium neon laser clear base</i>	SCOPIX® LT2C	Ektascan HNC	LI-HMc	LP-670Dc	---
RADIOMAT™ 820B <i>Laser film</i>	SCOPIX® LT IRB SCOPIX® LT 820B	Ektascan IRB	LI-LM LI-IM	LP-820H	---

* RADIOMAT double emulsion films are designed to be processed in 90 second, or shorter, processing cycle

Film Distributors Cross Reference to RADIOMAT

RADIOMAT™	Medlink	IBF
RADIOMAT SG	Green	RXG, OREF
RADIOMAT GL	Green	---
RADIOMAT B-Plus	Blue	RXB
RADIOMAT M-Plus	Half Blue	RXA, MSF

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RADIOMAT™ SG, GL, B-PLUS, M-PLUS Medical X-Ray Film

Orthochromatic and Blue Sensitive Medical X-Ray Films

★ Distinctive products for a choice of spectral sensitivity and speed

■ RADIOMAT™ SG™

Full Speed Orthochromatic Film Provides high contrast and excellent detail throughout the entire diagnostic range and rapid processing. This medium speed, high contrast film is compatible with any green-emitting rare-earth intensifying screen. When used with 400-speed green rare-earth screens, images have high clarity, high contrast, and overall image sharpness. When used with 100-speed green rare-earth screens, the film provides outstanding detail in extremity images.

■ RADIOMAT™ GL™

Full Speed Orthochromatic Latitude Film Provides low noise, high sharpness and an expanded contrast range when used with green rare-earth screens. Ideal for chest, portable, BE, pelvis, and soft-tissue applications. Provides the broadest range of information in a single image with minimal retakes due to exposure errors.

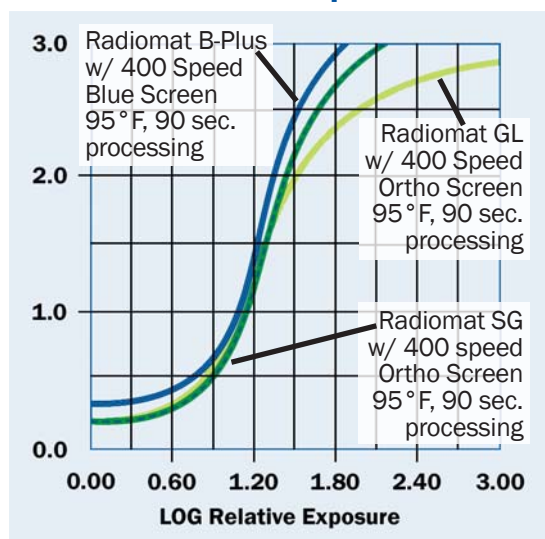
■ RADIOMAT™ B-PLUS™

Full Speed Blue Film Provides a wide range of system speeds when used in combination with blue-emitting rare-earth and calcium tungstate intensifying screens. Excellent detail with high contrast is achieved throughout the entire diagnostic range. The film features low patient dose and excellent image quality.

■ RADIOMAT™ M-PLUS™

Half Speed Blue Film This half speed, blue sensitive film offers high contrast and low noise for extra sharp images. The film is perfect for general radiography, providing extra sharp images with outstanding detail and is compatible with all blue-emitting intensifying screens.

Sensitometric Response Curve



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RADIOMAT™ SG, GL, B-PLUS, M-PLUS Medical X-Ray Film

Technical Data

State-of-the-Art Films for Traditional Radiology

- ★ Each film type provides sharp detail and yields consistent performance in a wide variety of processing conditions. The films are compatible with your existing generating equipment, (cassettes and intensifying screens) with little or no technique change.
- ★ The Radiomat Orthochromatic Film products are available in both high contrast and latitude curve shapes, and achieve optimum quality performance when used with green emitting rare - earth screens.
- ★ The blue-sensitive films are available in both full speed and half speed rating categories.
- ★ All of the Radiomat films are coated on a blue-tinted polyester base and exhibit excellent handling characteristics, long shelf life, with low fog.

Safelight Requirements

The use of a GBX-2 (or equivalent) safelight filter is recommended. The filter should be utilized in conjunction with a 15 watt frosted bulb and positioned at least four feet from the unloading/loading area, and processor feed-tray.

Storage

Unopened, unexposed film should be stored at temperatures at or below 70 °F in a dry location, preferably between 30% and 50% relative humidity. Film should be protected from sources of ionizing radiation including x-ray scatter.

Processing

RADIOMAT™ Medical X-Ray Films are designed to be processed in automatic processors using “High Throughput”, standard, or extended cycles. When used in the standard 90 second cycle, a temperature of 95 ° F is recommended. The films can also be processed manually. These robust films perform well in all quality developers and fixers.

Handling

Films should be handled by the edges; avoiding creasing, buckling and physical pressure. Avoid using hand lotions prior to handling films.

Packaging

Available in all customary sizes in 100 sheet reclosable boxes.

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RADIOMAT™ Duplicating Medical X-Ray Film

High Fidelity, Direct Reversal Film

- ★ Unique dual sensitivity to UV and fluorescent white light sources
- ★ Well suited to duplicate radiographs, extra oral, video and laser originals
- ★ Outstanding reproduction of all diagnostic information
- ★ Anti-halation backing further ensures greater duplication accuracy of original film

■ UV and White Light Sensitive Duplicating Film

The Radiomat Duplicating Film is a high fidelity, direct reversal film for use with UV and white fluorescent light sources. The emulsion is formulated to produce outstanding duplicates by using an anti-halation opposing side coating with a wide range of density capabilities.

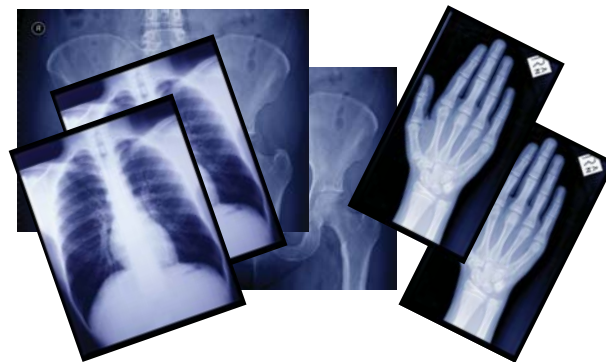
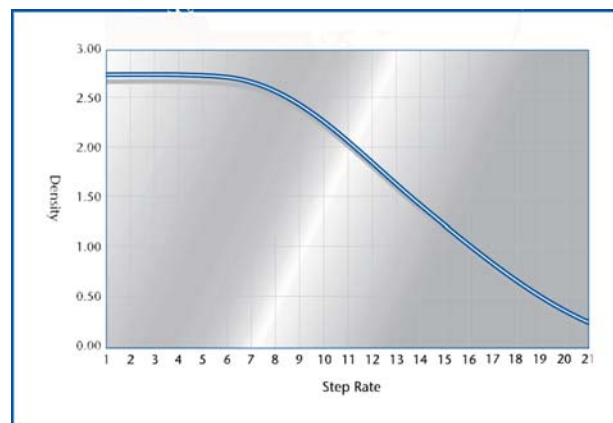
■ Sensitivity Response

One of the most important features of the Radiomat Duplicating Film is its capability of working with almost any type of duplicator because of the dual sensitivity of UV and fluorescent white light. The sensitivity response is unique in the medical x-ray field and provides greater flexibility in its use with minimal concerns on the type of exposure equipment or light source being employed.

■ Fidelity of Reproduction

The sensitometric response specifically addresses the need for a wide range of densities. The long, straight range of contrast provides the many varied possible densities inherent within the used diagnostic range of radiographs. This wide range of density reproduction yields highly accurate duplications and makes the film suitable for duplication of many different imaging formats including standard radiographs, extra oral, video and laser originals.

Sensitometric Curve



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RADIOMAT™ Duplicating Medical X-Ray Film

Technical Data

State-of-the-Art Films for Traditional Radiology

- ★ Exacting and stringent processes used in the manufacture of all Radiomat imaging products ensure consistently high quality radiographs. Speed, contrast, and physical characteristics are continuously measured and improved. As a result, your final radiographs can achieve optimal image potential.
- ★ The film's sensitivity response - unique in the medical x-ray field - provides a high degree of flexibility with respect to exposure equipment and light sources. It's ideal for duplicating standard radiographs, mammographic images, video, and laser originals. Radiomat film is coated on a blue-tinted polyester base, exhibits excellent handling characteristics and achieves optimum results using both automatic and manual processing methods.

Polyester Base

The polyester base is a blue tinted type to best reproduce and simulate the majority of original images. A clear base original will duplicate, however the clear areas on the original will become blue tinted.

Exposure and Orientation

Radiomat Duplicating Film has emulsion on one side. The emulsion side is required to face the light source and original x-ray to perform correctly. Notches are cut into the film to aid in proper orientation. When the duplicating film is held so the top notches are on the top edge and to the right, then the emulsion side is facing the user.

Safelight Requirements

The use of an EK GBX-2 (or equivalent) safelight filter is recommended. It should be utilized in conjunction with a 15-watt frosted bulb with a distance of at least four feet from the loading and unloading area.

Processing

Radiomat Duplicating Film achieves optimum results in all automatic and manual processing methods. This includes small tabletop processors and large freestanding models. It can also be processed at the same time and temperatures as your original film.

Handling

Films should be handled by the edges; avoiding creasing, buckling and physical pressure. Avoid using hand lotions prior to handling films.

Packaging

Available in following sizes:
14x17 in, 11x14 in, 10x12 in,
8x10 in, 5x12 in & 15x30 cm.
In 100 sheet reclosable boxes.

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RADIOMAT™ Duplicating Medical X-Ray Film **Technical Guide**

Superior Results in the Reproduction of Original Radiographic Film

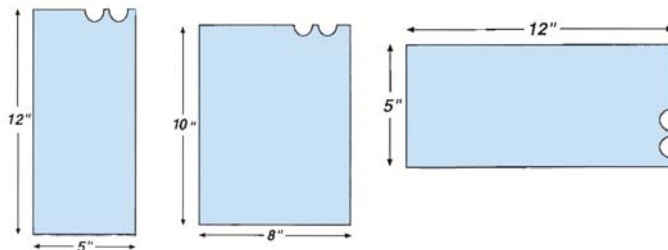
Radiomat Duplicating Film has been specifically developed to meet the diverse needs in today's general and dental care practice. The highest standard of quality is assured through thorough and rigid quality checks throughout the entire manufacturing process.

Proper Usage

There are two methods used to make copies of original radiographs using duplicating film. The most common and best method is using a duplicator with an ultraviolet light source. The second method uses no devices except for a light source overhead.

Duplicating Machine Method

1. Take the original radiograph and place it on the transparent surface of the duplicator.
2. Under darkroom safelight conditions (G8X-2 ruby red filter) take a sheet of duplicating film out of the box or film bin.
3. Identify by touch where the cut out notches are located on the duplicating film. The notches are used to help you orient the emulsion side of the duplicating film (remember duplicating film has emulsion only on one side). You will want the emulsion side of the duplicating film facing the light source of the duplicator. Use the following illustrations to orient which side is the emulsion side. When the notches are in the illustrated corner the emulsion is facing toward you.



4. Place the duplicating film over the original film to be copied with the emulsion side of the duplicating film against the original. The emulsion side of the duplicating film will now be facing down toward the light source on top of the original.
5. Different brands of duplicating film require different exposure times. Generally the exposure time can vary from 3 seconds to 30 seconds. Exposure time is dependent on the type of duplicator and the type of film. To find the best exposure time, it is recommended to select a time midway between the range of 5-30 seconds. This would be about 15-20 seconds.

Note: Take an exposure and develop the film. If the duplicate comes out light, you will need to decrease the exposure. If the duplicate comes out dark, the exposure needs to be increased.

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RADIOMAT™ Duplicating Medical X-Ray Film

Technical Data

State-of-the-Art Films for Traditional Radiology

- ★ Radiomat Duplicating Film provides sharp detail and yields consistent performance.
- ★ This film is designed for making copies of original radiographs and meets a wide range of needs for general medicine and dental care practices. It is compatible with most brands of duplicating machines and works using either a duplicator with an ultraviolet light source or an overhead fluorescent white light source.
- ★ The film works well in exposure times from 3 to 30 seconds, giving the user good flexibility to reproduce a variety of original radiographs with consistently high quality results.

White Fluorescent Light Method

1. Take the duplicating film out of the box or film bin and place it on the counter top with the emulsion side facing up.
2. Place the film to be copied on top of the duplicating film.
3. Now follow step five as described for duplicating machine method.

Troubleshooting Guides

1. Duplicate has a ghostly image. First check to make sure the emulsion side of the duplicating film is facing the light source.
Make sure you have a G8X-2 ruby red compliant safelight filter. Orange or amber color will light fog the film. Some RINN brand duplicators have a pre-light or viewing light inside.
If it is orange in color you need to change this bulb. The RINN part number is 3201. Suggested list price is about \$4.00 each and two bulbs will be required. All RINN duplicators manufactured after 1/97 have the proper bulb.
2. The duplicate is coming out either too light or too dark. If the duplicate comes out light, you will need to decrease the exposure.
If the duplicate comes out too dark you will need to increase the exposure.
If the duplicates are significantly too dark or too light make large adjustments with the exposure timer.
Example: If your exposure time was 20 seconds and the film was very light reduce the exposure in half to 10 seconds then make smaller adjustments to obtain a more desirable image.

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