

## T-MAT L/RA Film

T-MAT L/RA Film is a high-speed, wide latitude orthochromatic film for use with green light emitting intensifying screens such as LANEX Regular or LANEX Medium. Due to its wide latitude, T-MAT L/RA Film provides excellent results for low-contrast applications such as soft-tissue visibility, abdominal imaging and foreign-body localization. It is coated on a blue, approximately 0.2 mm (7-mil) polyester support that has a base density of approximately 0.19, with good static protection. T-MAT L/RA Film features T-Grain emulsion technology that reduces the amount of screen-light crossover, resulting in excellent image sharpness. It is designed for both standard high-throughput and rapid (RA) processing cycles. It may also be processed manually. Due to the use of the T-Grain technology, the characteristics of T-MAT L/RA Film are:

- o High sensitivity
- o High sharpness
- o High gloss radiographs
- o Robust when used in different processing conditions

### Sensitometric and Photographic Properties:

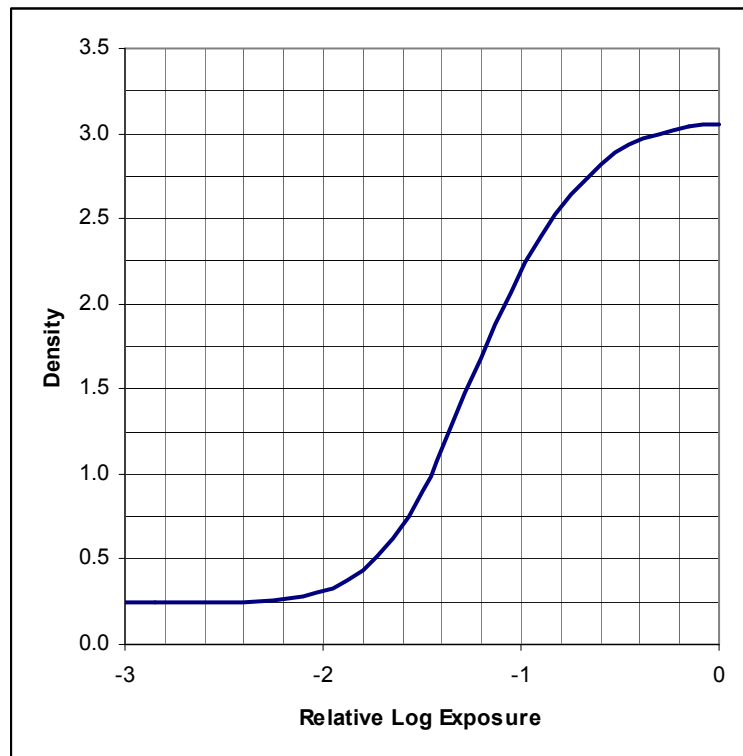
Screen	System Speed
LANEX Fine	100
LANEX Medium	250
LANEX Regular	400
LANEX Fast	600

### Sensitometric Parameters:

<b>Speed</b>	Measured at 1.0 OD above Gross Fog
<b>Contrast</b>	Measured as slope of the straight line portion of the sensitometric curve, and computed as the value for the rise for any three consecutive steps.
<b>Gross Fog</b>	Density of film base plus processing fog.

### T-MAT L/RA Film

1/50 second Simulated Green Screen Exposure; 90-second Processing; RP X-OMAT Chemicals; X-OMAT 5000 RA Processor; Diffuse Visual Densitometry;



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**Automatic Processing Recommendations:**

In general, processing is recommended in X-OMAT and RP X-OMAT Processors using RP X-OMAT, X-OMAT EX II, X-OMAT MX or X-OMAT LE+ Developer and Replenisher and RP X-OMAT LO or X-OMAT MX Fixer and Replenisher.

**Influence of developer temperature in case of automatic processing**

-2 °C	Ref	+2 °C
0	Base fog	+0.01
-10 %	Sensitivity	+7 %
-1 %	Contrast	0 %

**Replenishment Rate Recommendations for X-OMAT or RP X-OMAT Processors (Replenishment by length)**

Film Size Processed	Use Condition	Average Number of Films per 8 hours processor operation	Replenishment Rates (ml per 35 x 43 cm)	
			Developer	Fixer
35 x 35 cm (only)	High	90 sheets or more	50	70
	Medium	30 – 90 sheets	65	85
	Low	30 sheets or less*	80	100
Average size intermix	High	115 sheets or more	50	70
	Medium	40 – 115 sheets	65	85
	Low	40 sheets or less*	80	100
35 x 43 cm (only)	High	75 sheets or more	60	85
	Medium	25 – 75 sheets	80	100
	Low	25 sheets or less*	100	120

\*If sensitometry does not stay within control limits, flooded replenishment may be needed.

Please refer to Service Bulletin No. 30, available on the Carestream website or upon request, for additional processing recommendations.

**Recommended Starter Volumes**

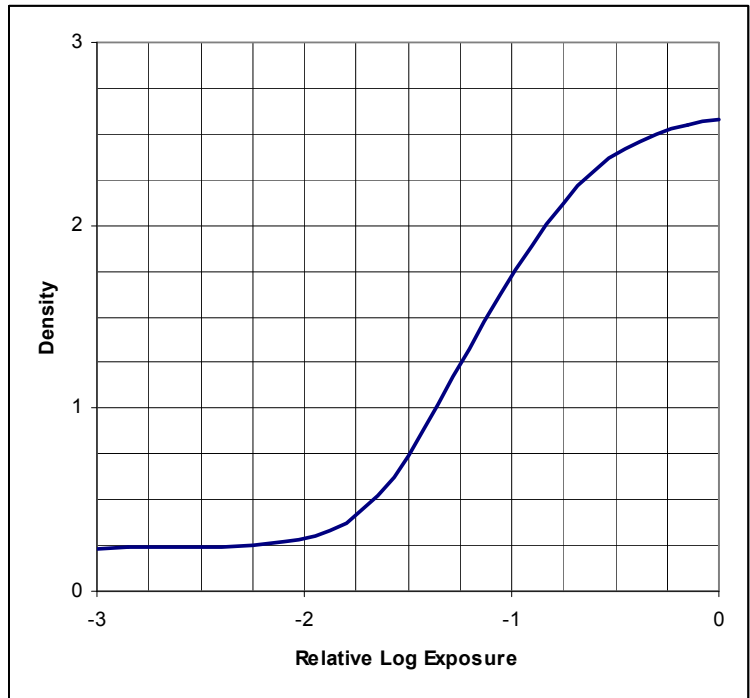
Developer	Starter (Added to processor developer tank)
RP, EX II, MX	89 ml (3 fl. Oz.) per 3.78 Litres (1 gallon)
LE+	No starter added

**Influence of developer temperature in case of manual processing**

The developing time must be adjusted as per the following the table:

Temperature °C :	20	22	24.5	26.5
Developer Time (minutes)	8	7	5	4

**T-MAT L/RA Film**  
1/50 Second Simulated Green Screen Exposure  
GBX Chemicals, 7 minutes, 22 °C (72 °F), Manual Process  
Diffuse Visual Densitometry



**Sensitometric Quality Control** (required for Germany and Switzerland)

The film was tested with a calibrated light sensitometer and processed in a X-OMAT 5000 RA processor, filled with fresh RP X-OMAT Developer and RP X-OMAT LO Fixer.

Characteristics are measured according to DIN 6868-55




LE = 1.76            +/- 0.09  
 LK = 2.11           +/- 11 %  
 EI = 1.21            step = 9  
 KI = 1.41            step = 13 – 9

+Note : the results obtained are dependent on exposure and processing conditions

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## Storage and Handling

### Storage -

Unexposed:	  	<p>10–24 °C (50–75 °F)</p> <p>Do not refrigerate or freeze as this can cause condensation to occur.</p> <p>30–50 %RH</p> <p>Protect from heat and radioactive sources. Film is to be properly shielded from x-rays, gamma rays, or penetrating radiation.</p>
Exposed:	Keep cool, dry, and properly shielded from penetrating radiation. Process as soon as possible.	
Processed:	16–27 °C (60–80 °F), 30–50 %RH	

The film should be used before the expiration date  indicated on the box with the lot number **LOT**.

### Handling -

Hands must be clean, dry and free of lotions, etc. Film should be handled carefully by the edges to avoid physical strains such as pressure, creasing, or buckling. Luminous watches, cell phone and darkroom light leaks should be avoided.



Do not re-use. Film is a single use medical device.

### Safelight Filter



Use a Ruby Red Safelight Filter, such as GBX-2, with a frosted 15-watt bulb or a LED

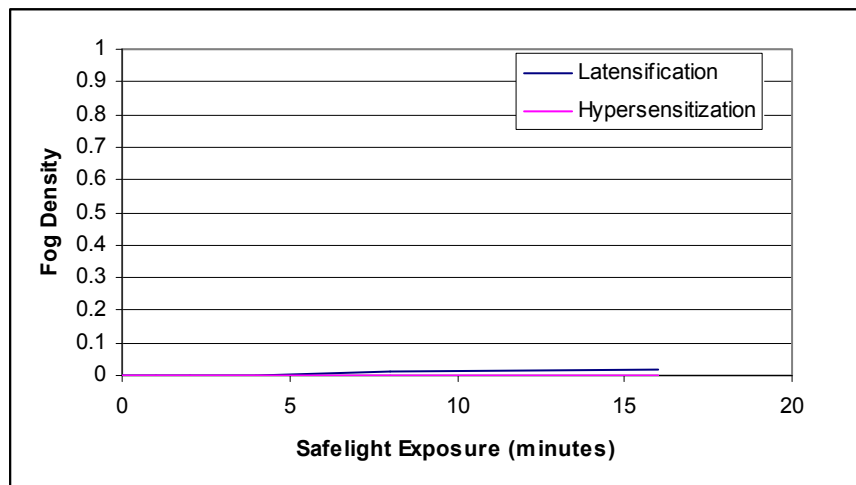
Safelight located at least 1.22 metres (48 inches) from the film.

**Latensification:** Safelight exposure after primary x-ray exposure.

**Hypersensitization:** Safelight exposure prior to primary x-ray exposure.

#### T-MAT L/RA Film

GBX-2 Safelight Filter, 15-watt bulb / 1.22 metres (48 inches)  
X-OMAT 5000 RA Processor, RP X-OMAT Chemicals, 35 °C (95 °F)



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

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Carestream Health France  
1, rue Galilée  
93192 NOISY-LE-GRAND CEDEX  
FRANCE

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Carestream Health, Inc. – 150 Verona Street - Rochester, NY, USA 14608

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