

## T-MAT G/RA

T-MAT G/RA<sup>1</sup> is a high-speed, ortho-sensitive medical x-ray film for use with green emitting intensifying screens such as LANEX Regular or LANEX Medium. It is coated on a blue, approximately 0.2 mm (7-mil) polyester support that has a base density of approximately 0.19, with improved static protection. T-MAT G/RA features T-grain emulsion technology that reduces the amount of screen-light crossover, resulting in improved image sharpness. It is processable in existing automated processing cycles as well as Rapid Access process cycles or in standard dental processors capable of handling sheet film using READYMATIC Chemicals. It may also be processed manually.

Due to the use of the T-Grain technology, the characteristics of T-MAT G/RA are:

- very high contrast
- high sensitivity
- high sharpness
- high gloss radiographs
- invariant when used in different processing conditions

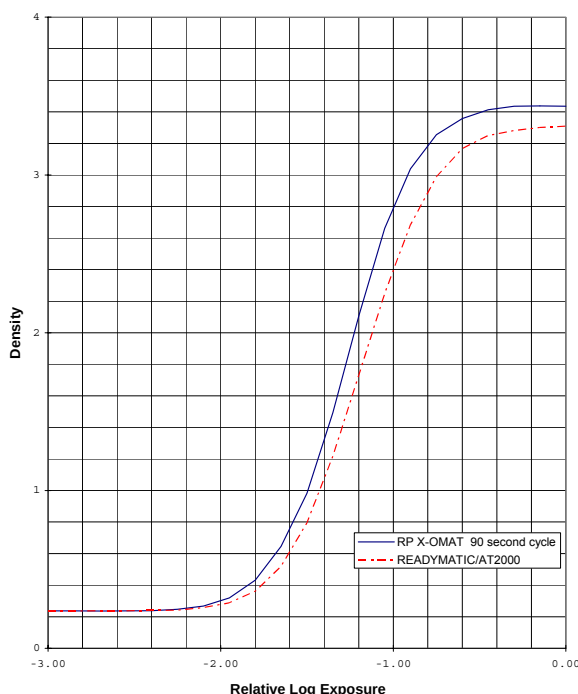
### Sensitometric and Photographic Properties:

| Screen        | System Speed |
|---------------|--------------|
| Lanex Regular | 400          |
| Lanex Medium  | 250          |

### 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 G/RA**  
Simulated Green Screen 1/50 second; RP X-OMAT Chemicals  
Diffuse Visual Densitometry



Notice: While the data presented are typical of production coatings, they do not represent standards which must be met by Carestream Health, Inc.. Varying storage, exposure, and processing conditions will affect results. The company reserves the right to change and improve the product characteristics at any time.

<sup>1</sup> Also known as KODAK T-MAT G/RA Dental Film

## Automatic Processing Recommendations:

In general, processing is recommended in dental roller processors using READYMATIC Chemicals.

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

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

## Sensitometric Quality Control (only for Germany and Switzerland)

The film was tested with a calibrated light sensitometer and processed in an A/T2000 processor, filled with fresh READYMATIC Chemicals.

Characteristics were measured according to DIN 6868-5

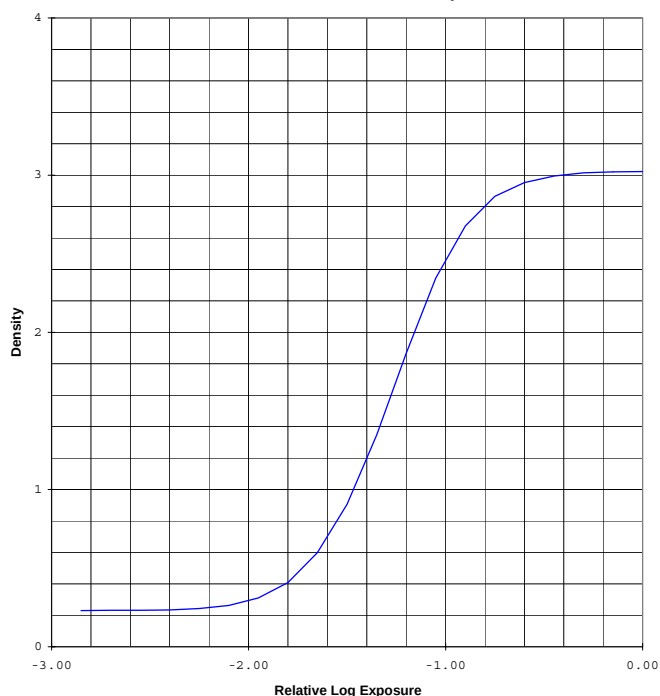
|    |   |               |
|----|---|---------------|
| LE | = | +/- 0.09      |
| LK | = | +/- 11 %      |
| EI | = | step = 9      |
| KI | = | step = 12 – 9 |

## Manual Processing Recommendations

| Solution/ Step                                                                                                                                                                                          | Temperature                      | Time                       | Agitation                                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------|
| GBX Developer Replenisher                                                                                                                                                                               | 22 °C (72 °F)<br>26.5 °C (80 °F) | 4 minutes<br>2 1/2 minutes | Tap sheet film hangers lightly on side of tank immediately after immersion to dislodge air bubbles. |
| NOTE: DO NOT agitate films during remainder of development step. Remove film and hanger 5 seconds before end of development. DO NOT allow films to drain excess developer back into the developer tank. |                                  |                            |                                                                                                     |
| Running Water Rinse                                                                                                                                                                                     | 16–30 °C (60–85 °F)              | 30 seconds                 | Immerse hanger rapidly; agitate continuously.                                                       |
| GBX Fixer Replenisher OR RP X-OMAT LO Fixer Replenisher                                                                                                                                                 | 16–30 °C (60–85 °F)              | 2–4 minutes                | Intermittent, 5 second every 30 seconds.                                                            |
| Running Water Wash (about 8 volume changes/ hour)                                                                                                                                                       | 16–30 °C (60–85 °F)              | 5 minutes                  | —                                                                                                   |
| Dry in a dust-free area at room temperature or a suitable drying cabinet. Temperature not to exceed 49 °C (120 °F).                                                                                     |                                  |                            |                                                                                                     |

### T-MAT G/RA

1/50 second Simulated Green Screen Exposure  
Seasoned GBX Developer, 4 minutes, 22 °C (72 °F) Manual Process;  
Diffuse Visual Densitometry



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### 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) | 5  | 4  | 3    | 2.5  |

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

Notice: The 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 to a particular box or roll of photographic material. They do not represent

standards or specifications that must be met by Carestream Health, Inc. The company reserves the right to change and improve product characteristics at any time.

## Storage and Handling

### Storage -

|            |                                                                                                                                                                                                                                                             |                                                                                                                                                                           |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unexposed: | <br><br> | 10–24 °C (50–75 °F)<br><br>30–50 %RH<br><br>Protect from heat and radioactive sources. Film is to be properly shielded from x-rays, gamma rays, or penetrating radiation. |
| 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 (emulsion) 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.

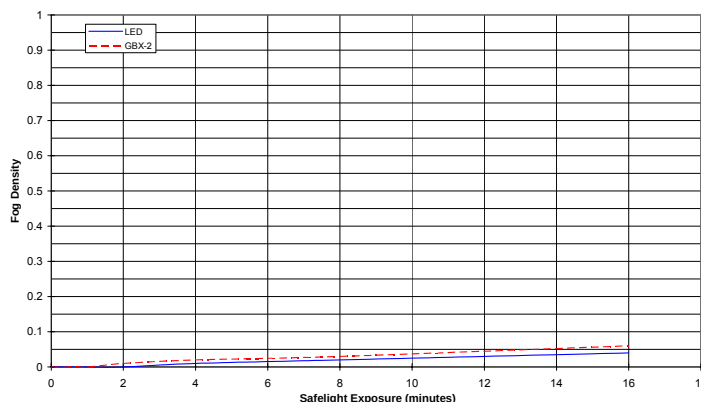
### TMAT G/RA

### Safelight Filter



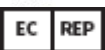
Use a Ruby Red Safelight Filter (wavelength > 520nm), such as GBX-2, with a frosted 15-watt bulb or a LED Safelight located at least 1.22 metres (48 inches) from the film.

GBX-2 Safelight Filter, 15-watt lamp / LED Safelight / 1.22 metres (48 inches)  
RP X-OMAT Chemicals, 35 °C (95 °F)  
(Fog growth with increasing safelight exposure)



### Latensification:

Safelight exposure after primary x-ray exposure.



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