Carestream

Technical Data Sheet

Issued 2017-02

Medical X-ray Blue / MXB Film[1]

Medical X-ray Blue / MXB Film is a full-speed, blue-sensitive general radiography film that is intended for use with blue light emitting intensifying screens such as X-OMATIC Regular. It is coated on a blue, approximately 0.2 mm (7-mil) polyester support, with good static protection. Medical X-ray Blue / MXB Film features T-grain emulsion technology that reduces the amount of screen-light crossover, resulting in excellent image sharpness. It is designed for standard high-throughput processing cycles. It may also be processed manually.

Features include:

- Enhanced blue image tone delivers optimal viewing characteristics and reduces eye fatigue
- Manual or automatic processing in standard cycle
- Robust processing tolerance with excellent speed and contrast stability under variable processing conditions helping to ensure consistent results

Sensitometric and Photographic Properties:

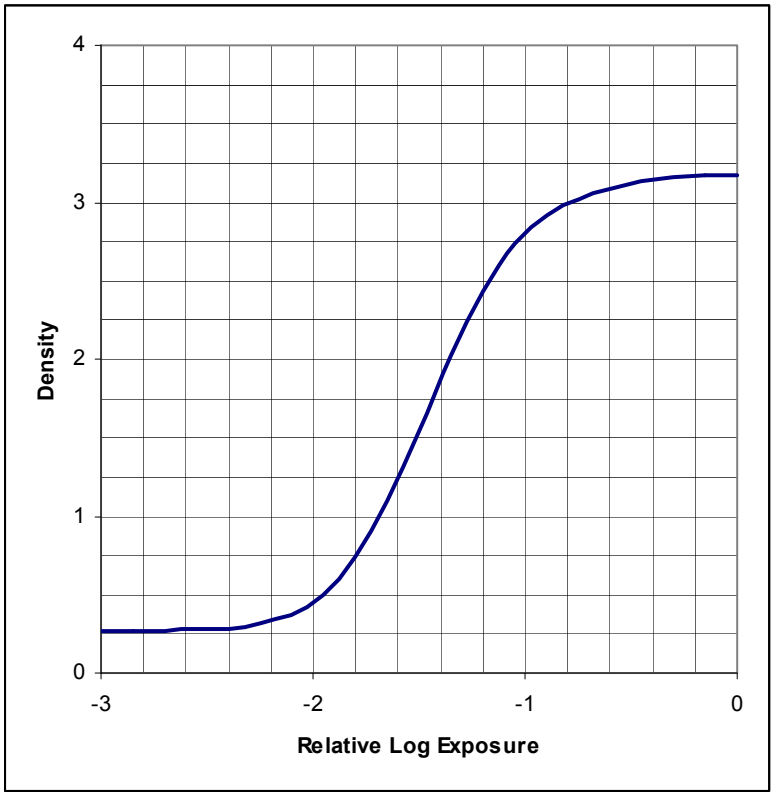
Screen	System Speed
X-OMATIC Regular	200

Sensitometric Parameters:

Speed	Measured at 1.0 OD above Gross Fog
Contrast	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.
Gross Fog	Density of film base plus processing fog.

Medical X-ray Blue / MXB Film

1/50 Second Simulated Blue Screen Exposure; 35 °C (95 °F); 90 Second Cycle;
RP X-OMAT Chemicals; X-OMAT 5000 RA Processor; Diffuse Visual Densitometry



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.

[1] EXCEPTION: refer to CHSP-8694 for cat numbers 1522200, 1818236, 8225526, 1728690, 8205155

Automatic Processing Recommendations:
In general, processing is recommended in X-OMAT and RP X-OMAT Processors using RP X-OMAT, X-OMAT EX II or X-OMAT MX 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 ºC	Ref	+2 ºC
-0.01	Base fog	+0.01
-15 %	Sensitivity	+7 %
+2%	Contrast	+2 %

Replenishment Rate Recommendations for X-OMAT and 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 Medium Low	90 sheets or more 30–90 sheets 30 sheets or less*	50 65 80	70 85 100
Average size intermix	High Medium Low	115 sheets or more 40–115 sheets 40 sheets or less*	50 65 80	70 85 100
35 x 43 cm (only)	High Medium Low	75 sheets or more 25–75 sheets 25 sheets or less*	60 80 100	85 100 120
*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

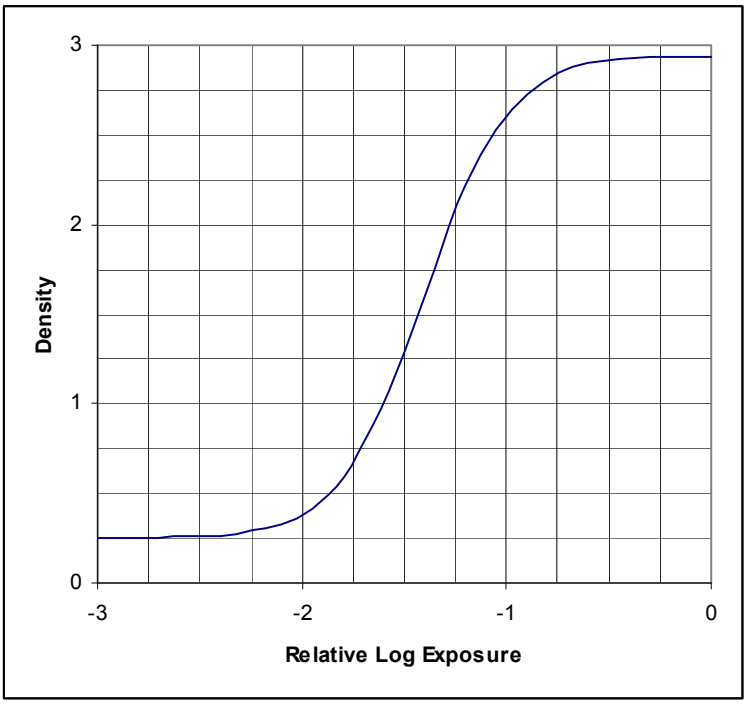
Developer	Starter (Added to processor developer tank)
RP, EX II, MX	89 ml (3 fl. Oz.) per 3.78 Litres (1 gallon)

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

Medical X-ray Blue / MXB Film
1/50 Second Simulated Blue 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 = 1.56 +/- 0.09
LK = 2.68 +/- 11 %

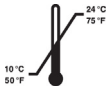
EI = 0.97 step = 10
KI = 1.86 step = 14 - 10

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

Storage and Handling

Storage -

Unexposed:



10–24 °C (50–75 °F)

Do not refrigerate or freeze as this can cause condensation to occur.

30–50 %RH

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 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.

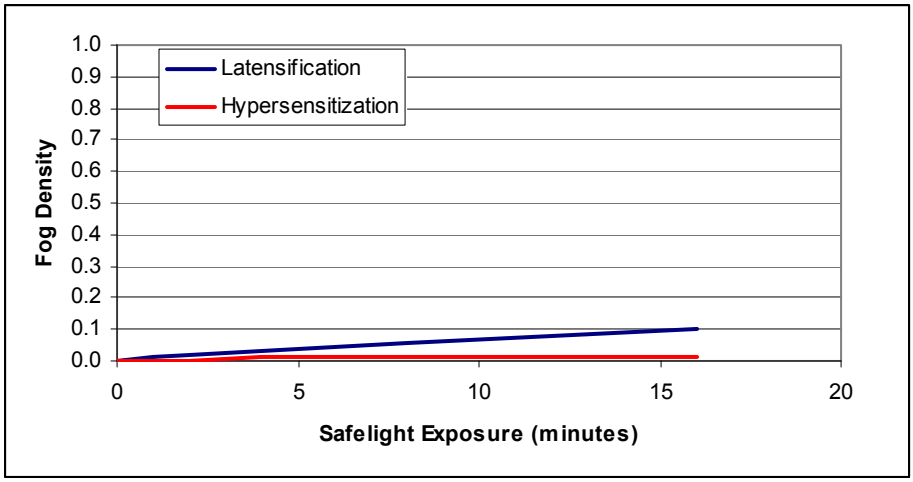
Safelight Filter

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.

Medical X-ray Blue / MXB 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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