

Ultra-speed

Ultra-speed¹ is a high quality dental x-ray film appropriate for all intra-oral exams. This product is compatible with all types of existing equipment used in the radiographic imaging chain.

The characteristics of Ultra-speed are:

- high contrast
- D class speed film according to ISO 3665 and ISO 5799 standards
- very high sharpness
- high gloss radiographs
- invariant when used in different processing conditions

Ultra-speed is coated on both sides of a transparent, blue-tinted, approximately 0.2 mm (7-mil) polyester base. An embossed dot, raised on the side of the film that faces the tube, serves to orient the radiographic image. Each film is packed into individual packets. Each packet is exposed directly with x-rays (no need of any intensifying screen).

Photographic Properties:

Manual processing conditions:

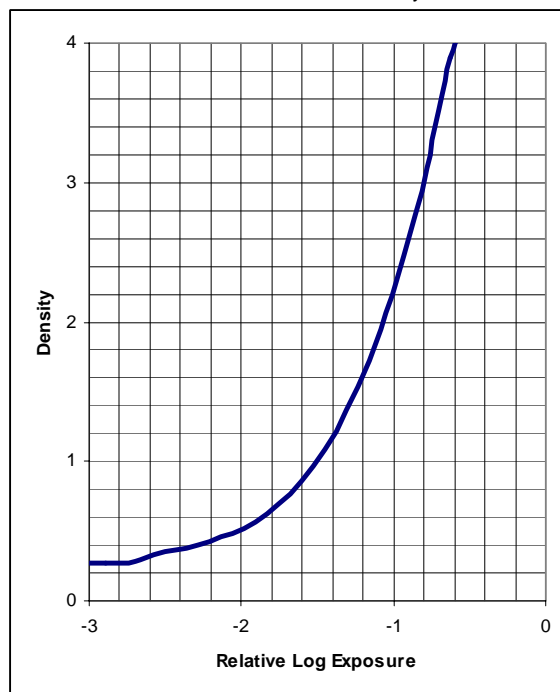
GBX chemicals:
 Dilution rate 1:3
 Developer temperature 22 °C (72 °F)
 Developing time: 4 minutes
 Film speed class: **D**
 Film average gradient class: 1.8

Automatic processing conditions:

READYMATIC Dental chemicals:
 A/T 2000 XR Dental Processor
 Standard cycle [5.5 minutes, 28 °C (82 °F)]
 Fresh solutions
 Film speed class: **D**
 Film average gradient class: 1.8

Ultra-speed

80 kV Direct X-ray; READYMATIC Chemicals, A/T2000
 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.

¹ Also known as KODAK ULTRA-SPEED Dental Film

Automatic Processing Recommendations:

In general, processing is recommended in dental roller processors using READYMATIC Chemicals. Carestream recommends that 236 ml (8 ounces) of appropriate replenisher be added to the developer and fixer working solutions each day, even if no film is processed. This is based on an average daily run of 20 to 30 intraoral films. If you process more than 30 intraoral films per day, increase the amount of daily replenisher solution at the rate of 7 ml (0.25 ounces) per additional film processed.

Note: RP X-OMAT Chemicals are **not** recommended for use in automatic processing.

Influence of developer temperature in case of automatic processing

-2 °C	Ref	+2 °C
-0.02	Base fog	+0.02
-10 %	Sensitivity	+10 %
-10 %	Contrast	+10 %

Manual Processing Recommendations

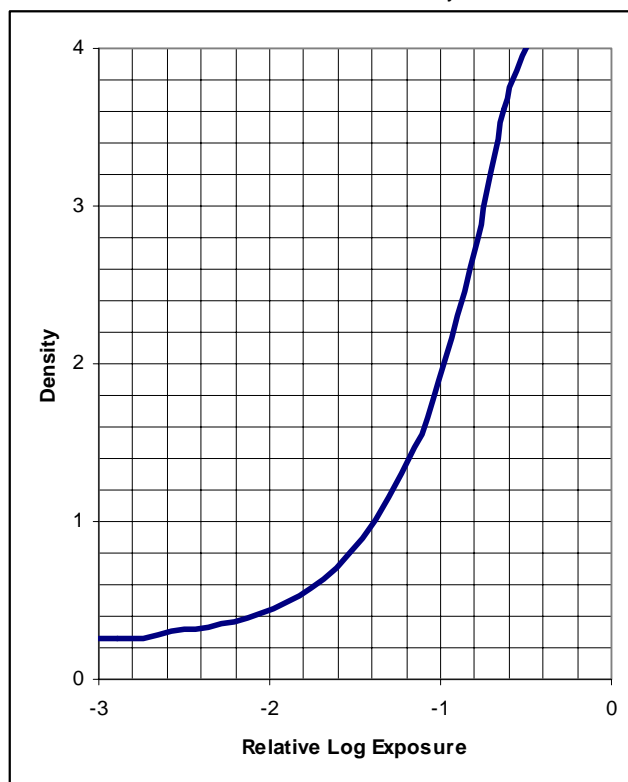
Solution/ Step	Temperature	Time	Agitation
GBX Developer working solution	22 °C (72 °F)	4 minutes	Tap sheet film hangers lightly on side of tank immediately after immersion to dislodge air bubbles.
	26.5 °C (80 °F)	2 1/2 minutes	
NOTE: DO NOT agitate films during remainder of development step. Remove 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 OR RP X-OMAT LO Fixer working solution	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)	10 minutes	—
Dry in a dust-free area at room temperature or a suitable drying cabinet. Temperature not to exceed 49 °C (120 °F).			

Note: Discard the developer and fixer after processing the equivalent of 60 intraoral films (No. 2 size packets) in 148 ml (5 ounces) of solution or after 2 consecutive days processing, whichever comes first. Keep developer covered when not in use to reduce the rate of oxidation and evaporation and to prevent contamination.

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80 kV Direct X-ray

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:	  	<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 (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.

Safelight Filter

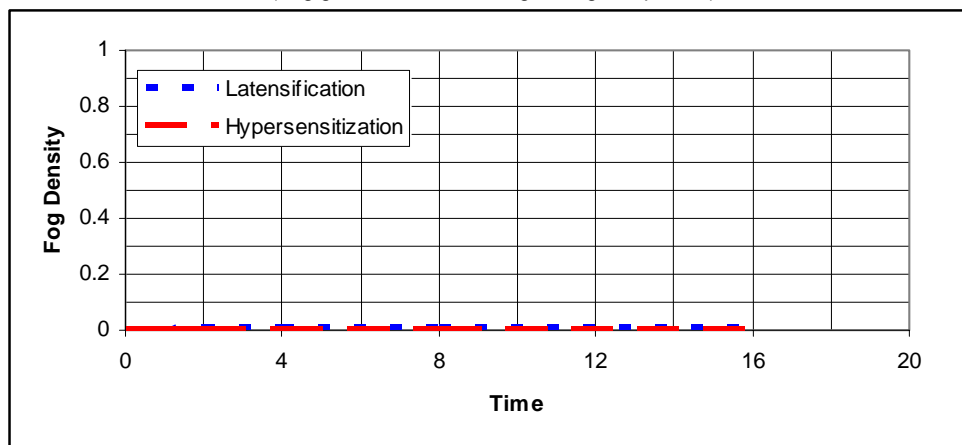
Use a Ruby Red Safelight Filter (**wavelength > 520nm**), such as GBX-2, with a frosted 15-watt bulb or a LED Safelight located at least 1.22 metres (48 inches) from the film.

Latensification: Safelight exposure after primary x-ray exposure.

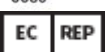
Hypersensitization: Safelight exposure prior to primary x-ray exposure.

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GBX-2 Safelight Filter, 15-watt lamp
(Fog growth with increasing safelight exposure)



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