Intraoral Dental Films*

INSIGHT, Ultra-speed, D-Speed, E-Speed

Description

Intraoral dental films are high quality dental x-ray films appropriate for all intraoral exams. These products are compatible with all types of existing equipment used in the radiographic imaging chain. Intraoral dental films are double-sided emulsion films, coated on a blue polyester base. Each film is packed into individual packets. Each packet is exposed directly with x-rays (no need of any intensifying screen).

Film characteristics of the intraoral dental films are:

Film	Processing Environment	ISO Speed Class	Contrast
INSIGHT	Automatic, roller transport	F	high
INSIGHT	Non-roller transport or manual processing	E	high
Ultra-speed	All processing conditions	D	high
D-Speed	All processing conditions	D	high
E-Speed	Automatic, roller transport	F	high
E-Speed	Non-roller transport or manual processing	E	high

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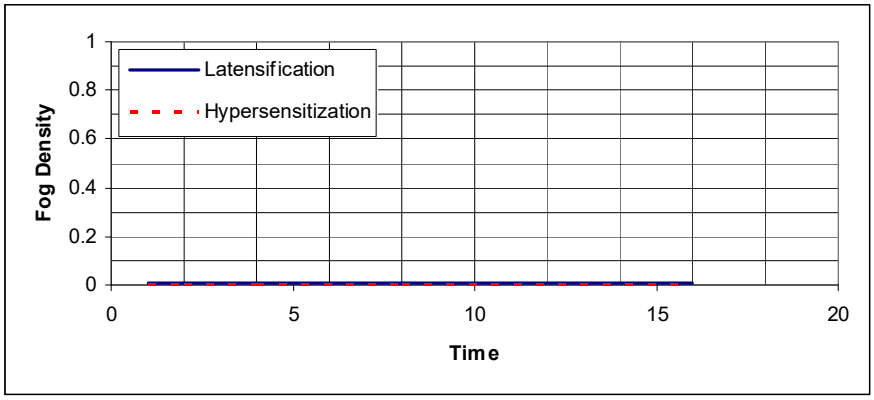
*All products are not available in all countries.

Safelight

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

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.

Manual Processing

GBX Chemicals

Influence of developer temperature in manual processing:

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

Temperature °C	20	21	22	24.5	26.5
Developer Time (minutes)	5	4.5	4	3	2.5

Manual Processing Recommendations

Solution / Step	Temperature	Time	Agitation
GBX Developer working solution	22 °C (72 °F) 26.5 °C (80 °F)	4 minutes 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 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 developer and fixer after processing the equivalent of 60 intraoral films (No. 2 size packets) in 148 ml (5 ounces) of solution or after 3 days, whichever comes first. Keep developer covered when not in use to reduce the rate of oxidation and evaporation and to prevent contamination.

Notice: Observe precautionary information on product labels and on the Safety Data Sheets.

Special Rapid Process

Recommended Process:

Solution/Step	Temperature	Time	Agitation
Rapid Access Developer	22 °C (72 °F)	15 seconds	Continuous
Rapid Access Fixer	16–30 °C (60–85 °F)	minimum of 15 seconds; until clear	Continuous
Wash	16–30 °C (60–85 °F)	30 seconds	Running Water

Note: Discard developer and fixer after processing the equivalent of 60 intraoral films (No. 2 size packets) in 148 ml (5 ounces) of solution or after 3 days, whichever comes first. Keep developer covered when not in use to reduce the rate of oxidation and evaporation and to prevent contamination.

If radiographs are to be retained, refix for 2 to 4 minutes in GBX Fixer working solution or Rapid Access Fixer and rewash in running water for 10 minutes. Dry film in a dust-free area at room temperature or in a suitable drying cabinet - temperature not to exceed 49 °C (120 °F).

Automated Processing

Readymatic chemicals in A/T 2000 XR Dental Processor

Influence of developer temperature in automatic processing:

-2 ºC	Ref	+2 ºC
-0.02	Base fog	+0.02
-10 %	Sensitivity	+10 %
-10 %	Contrast	+10 %

Standard Cycle:

All intraoral films may be processed in automated dental processors using READYMATIC chemicals. For recommendations, consult the instructions of the equipment manufacturer. We do not recommend shortened processing cycles for optimal image quality.

Endo Cycle:

This reduced time processing cycle provides a quick-look for non-archival quality periapical films. This process is used for dental surgical procedures where rapid processing is desired. For best archival results, process manually using the guidelines stated in the MANUAL PROCESSING section.

Replenishment:

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. Manufacturers of automated non-roller-type processors recommend that all (non-replenished) solutions be changed every two weeks. Replenished solutions should be replaced with fresh working solutions every 3 to 4 weeks under normal conditions.

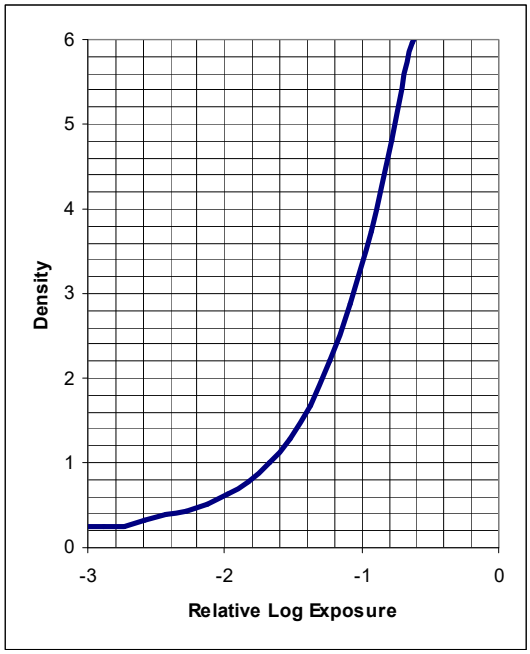
INSIGHT

INSIGHT 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. INSIGHT is a double-sided emulsion film, coated on a blue polyester base. Each film is packed into individual packets. Each packet is exposed directly with x-rays (no need of any intensifying screen).

The characteristics of INSIGHT film are:

- Very high contrast
- Extremely high sensitivity
- According to ISO 5799 and ISO 3665 standards, this film belongs to:
  - **F class speed** when processed in a roller-transport automatic processor
  - **E class speed** when processed in other automatic or manual conditions
- Very high sharpness
- High gloss radiographs
- Invariant when used in different processing conditions

INSIGHT
80 kV Direct X-ray; READYMATIC Chemicals, A/T2000
Diffuse Visual Densitometry



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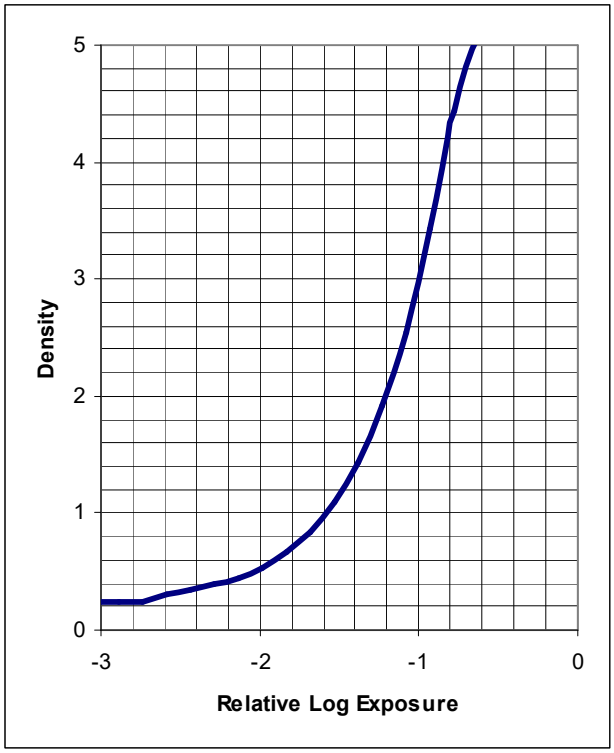
INSIGHT
80 kV Direct X-ray
GBX Chemicals, 4 minutes, 22 °C (72 °F) Manual Process;
Diffuse Visual Densitometry



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Ultra-speed

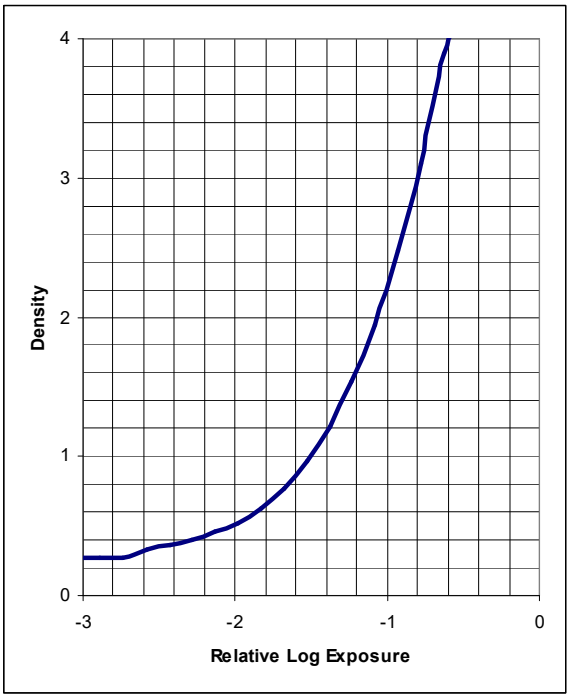
Ultra-speed is a high quality dental x-ray film appropriate for all intra-oral exams. This product is compatible with all types of existing equipment used in the radiographic imaging chain.

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).

Ultra-speed
80 kV Direct X-ray; READYMATIC Chemicals, A/T2000
Diffuse Visual Densitometry



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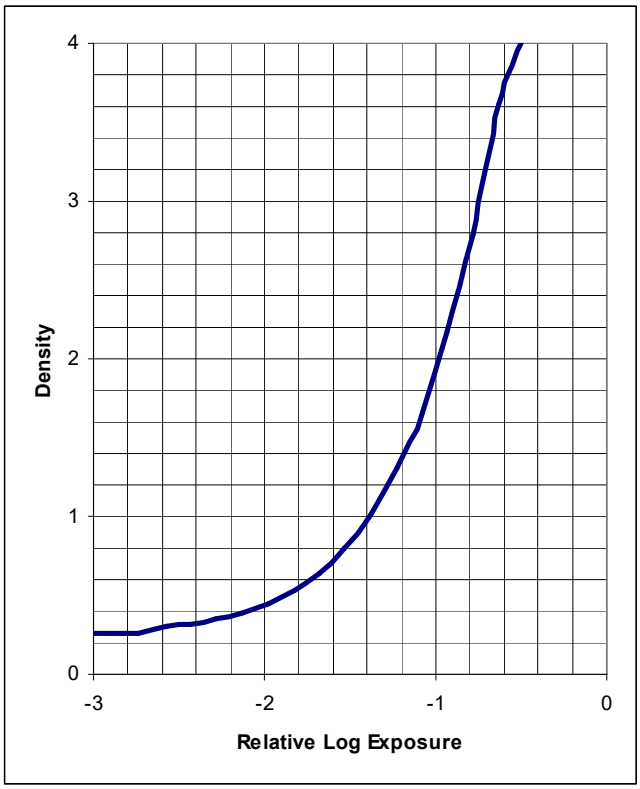
GBX Developer, 4 minutes, 22 °C (72 °F) Manual Process;
Diffuse Visual Densitometry



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D-Speed

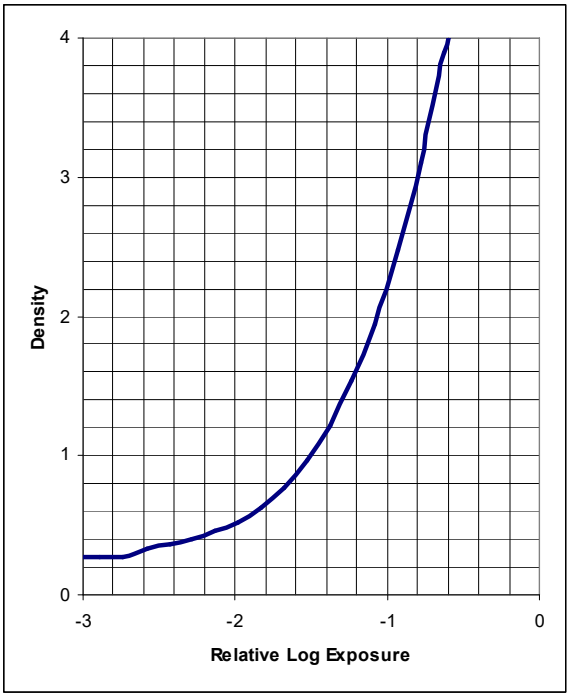
D-Speed is a high quality dental x-ray film appropriate for all intra-oral exams. This product is compatible with all types of existing equipment used in the radiographic imaging chain.

The characteristics of D-Speed are:

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

D-speed is coated on both sides of a transparent, blue-tinted, approximately 0.2 mm (7-mil) low density 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).

D-Speed
80 kV Direct X-ray; READYMATIC Chemicals, A/T2000
Diffuse Visual Densitometry



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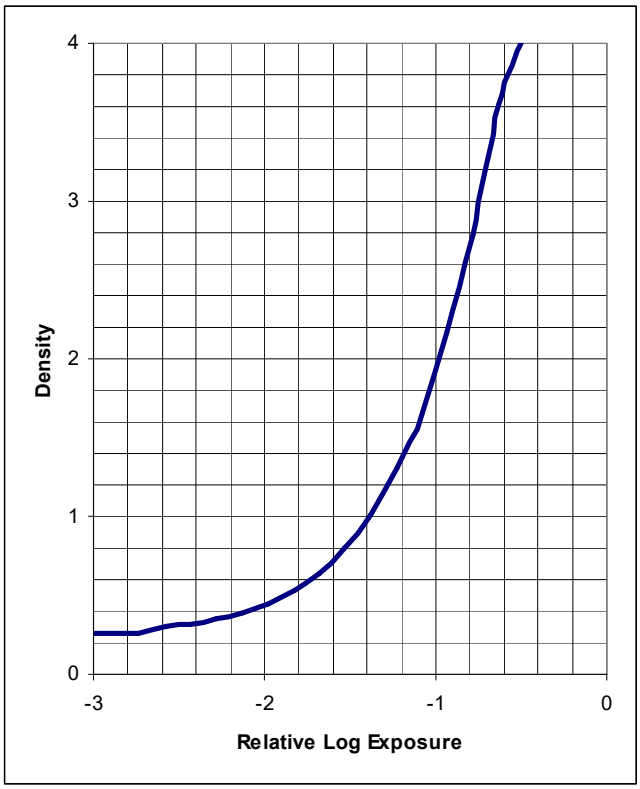
Diffuse Visual Densitometry



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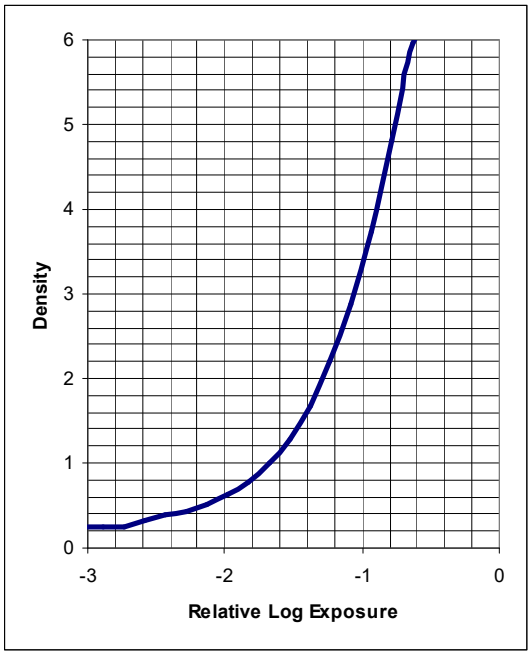
E-Speed

E-Speed 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. E-Speed is a double-sided emulsion film, coated on a blue polyester base. Each film is packed into individual packets. Each packet is exposed directly with x-rays (no need of any intensifying screen).

The characteristics of E-Speed film are:

- According to ISO 5799 and ISO 3665 standards, this film belongs to:
  - **F class speed** when processed in a roller-transport automatic processor
  - **E class speed** when processed in other automatic or manual conditions
- Very high contrast and sharpness
- Robust when used in different processing conditions

E-Speed
80 kV Direct X-ray; READYMATIC Chemicals, A/T2000
Diffuse Visual Densitometry



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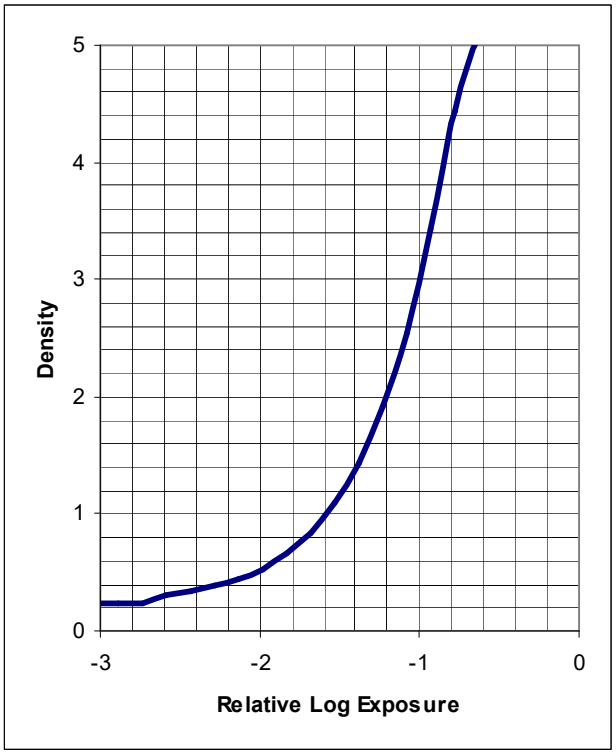
Diffuse Visual Densitometry



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

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

End of Data Sheet