

Gafchromic™ XR film

State-of-the-art processor-less products for radiology applications

Convenient, accurate and cost-efficient tools for radiology and diagnostic applications

Gafchromic™ XR-QA2 film – film for radiology QA tests

Gafchromic XR-M2 film – film for mammography QA test

Gafchromic XR-CT2 film – film measures beam slice width in CT scanner

Gafchromic XR-RV3 film – film for peak skin dose measurement

Gafchromic XR-QA2 film

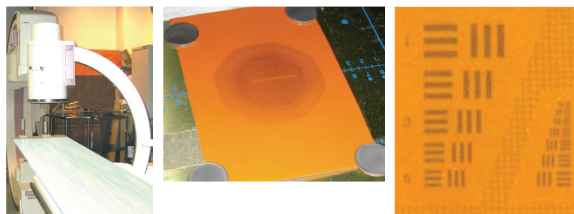
Gafchromic XR-QA2 film is designed specifically as a QA tool for radiology in a processor-less environment. Gafchromic XR-QA2 film is available in two sizes: 10" x 12" and 8" x 10" (10 sheets per package). It can be cut to various sizes and can be handled in room light.

Imaging detail with high resolution and contrast

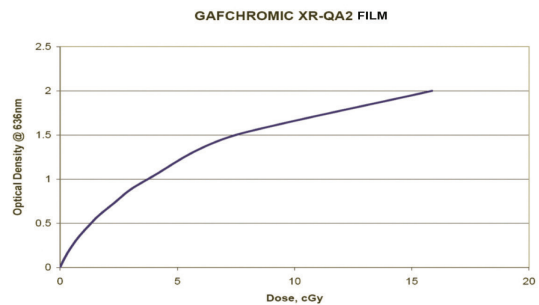
State-of-the-art quality production techniques for Gafchromic XR-QA2 film assure consistent and reliable high contrast results, with imaging detail at greater than 5000 dpi. Results are easy to read; and data is easy to understand.

Features:

- No processor required
- Instant calibration results
- High data integrity
- Improved contrast
- Sensitive to dose range 0.1 cGy to 20 cGy
- Two convenient film sizes to choose from
- Cost effective, easy to use
- Can be handled in room light



Sensitometric response of Gafchromic film, type XR-QA2 film



Dose Range	Energy Range	Configuration	Layer	Thickness
0.1 cGy to 20 cGy	~20 kVp to 200 kVp	4-layer laminate, substrate – adhesive layer – active layer – substrate	Yellow polyester Adhesive layer Active layer White polyester	97 microns 20 microns 25 microns 97 microns

Actual film layer thickness may vary slightly.

ASHLAND

With good chemistry great things happen.™

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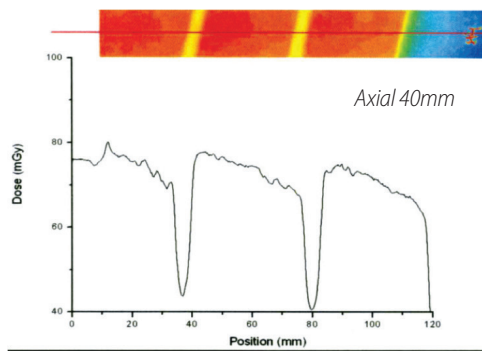
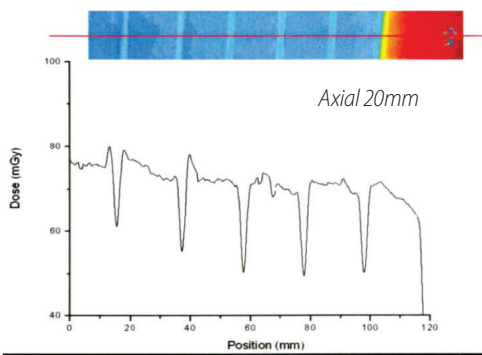
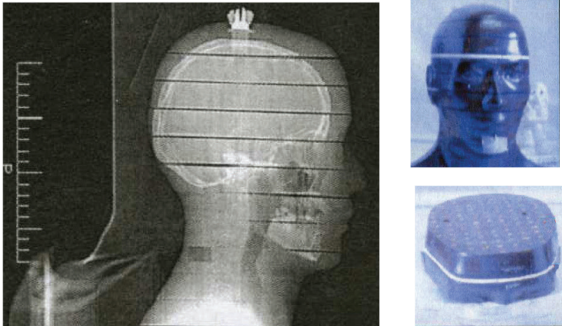
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Gafchromic™ XR-QA2 dosimetry film applications

Head phantom dosimetry application

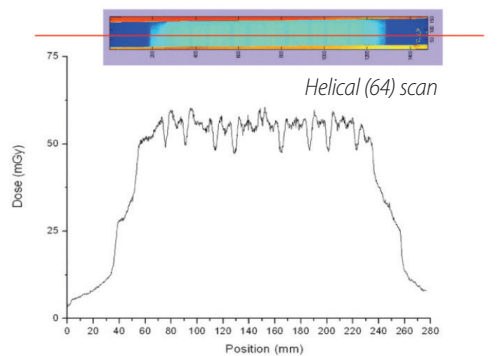
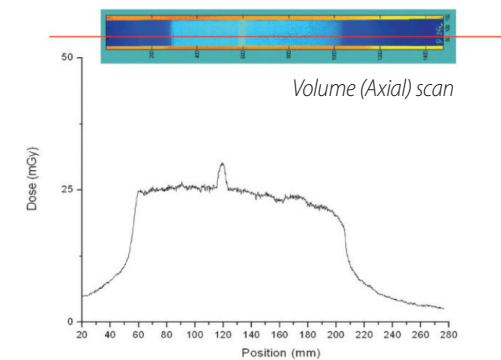
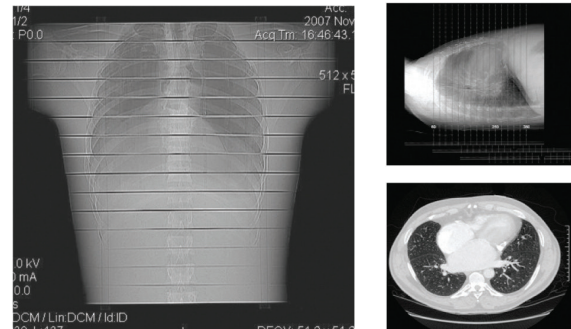
Typical head phantom radiation analysis. Gafchromic XR-QA2 film is easy to use, cost effective, and compatible with a wide variety of phantoms.



Actual results showing a strip of the Gafchromic XR-QA2 film for a typical phantom exposure

Chest phantom dosimetry application

Typical chest radiation analysis. Results taken from an in vivo study for a chest exam with 64 slices made with a CT scanner.



A - Yellow Polyester
B - Pressure Sensitive Adhesive
C - Active Layer
D - White Polyester

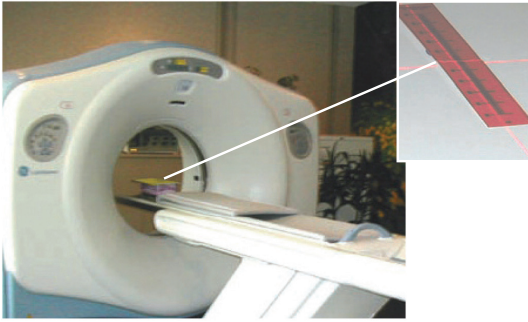
Structure of Gafchromic XR Film

Gafchromic XR-CT2 film

Gafchromic XR-CT2 film is designed for measuring radiation beam slice width on CT scanners in real time. It calibrates the beam slice with high accuracy and superior data integrity, and self-develops in a processor-less environment. Gafchromic XR-CT2 film comes individually boxed, 50 strips per package.

Features:

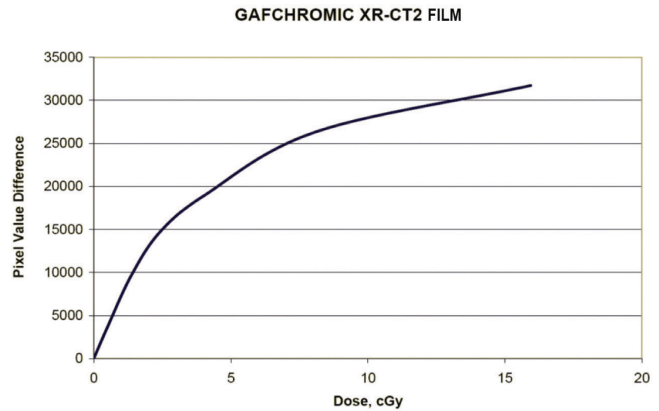
- Excellent for CT QA
- High data integrity
- Self-developing in real time
- Improved contrast
- Instant calibration results
- Easy to use
- Cost effective



A printed scale helps determine positions of light and radiation field, and beam slice width, with a single exposure. Gafchromic XR-CT2 film is boxed in packages of 50 strips.



Sensitometric response of Gafchromic™ XR-CT2 Film



Dose Range	Energy Range	Size	Configuration	Layer	Thickness
0.1 cGy to 20 cGy	~20 kVp to 200 kVp	3/4" x 5"	4-layer laminate, substrate – adhesive layer – active layer – substrate	Yellow polyester Adhesive layer Active layer White polyester	97 microns 20 microns 25 microns 97 microns

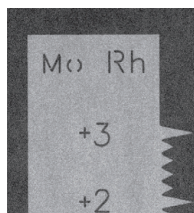
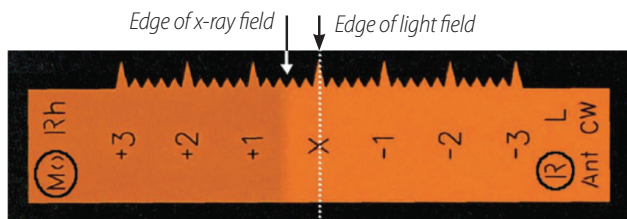
Actual film layer thickness may vary slightly.

Gafchromic XR-M2 film

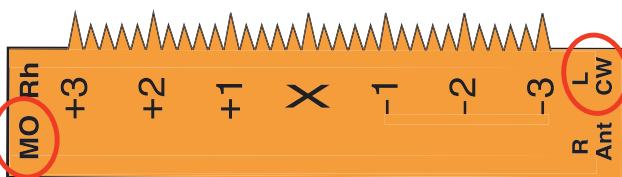
Gafchromic XR-M2 film is specifically conceived for mammography QA testing. Using a single strip of Gafchromic XR-M2 film, the location of the light field, the radiation field, plus the position of the detector with respect to each other, can all be determined. Packed 50 strips per box.

Features:

- High data integrity
- Real time self-developing
- Improved contrast
- Instant calibration results
- Sensitive dose range 0.1 cGy to 20 cGy
- Easy to use, cost effective

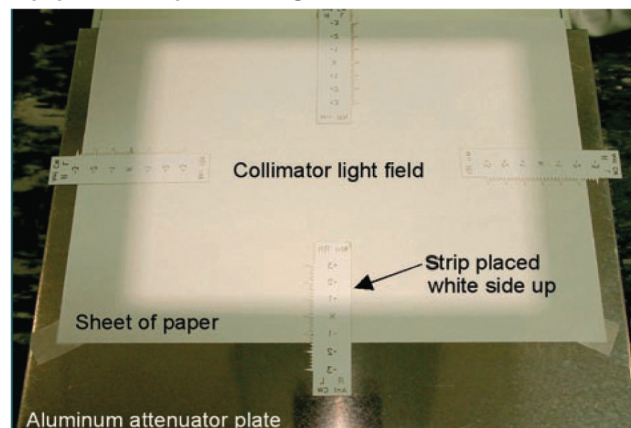


Shown above: Illustrates the determination of the light field/X-ray field deviation. For this determination, the light field was aligned at the "X."
Shown left: Monitor image



Each Gafchromic XR-M2 film strip is labeled to identify the anode track and the field edge. The film is marked for chest wall edge of Mo track.

Equipment setup for making the collimation assessment



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Gafchromic™ XRM2 film (continued)

Dose Range	Energy Range	Size	Configuration	Layer	Thickness
0.1 cGy to 20 cGy	~20 kVp to 200 kVp	1" x 3.5"	4-layer laminate, substrate – adhesive layer – active layer – substrate	Yellow polyester Adhesive layer Active layer White polyester	97 microns 20 microns 25 microns 97 microns

Actual film layer thickness may vary slightly.

Gafchromic XR-RV3 film

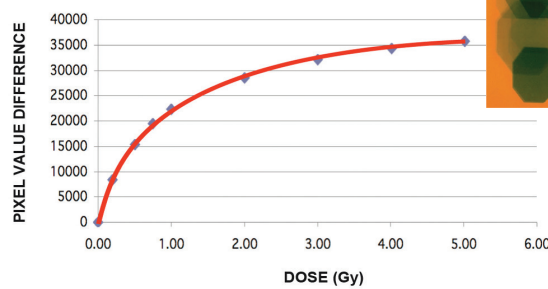
Gafchromic XR-RV3 film, specially formatted for skin dose measurement, measures surface peak skin dose in interventional procedures guided by fluoroscopy. Sheet size 14" x 17".

Features:

- An excellent tool for the processor-less environment
- Sensitive to wide dose range 0.05 Gy to 15 Gy
- An easy to use film with high data integrity
- Improved resistance to indoor lighting
- Inquire about FilmQA-XR™ quantitative analysis software with mapping of isodose curves

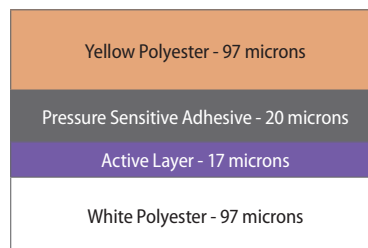


Sensitometric response of Gafchromic film, type XR-RV3 film



*Unitary embolization – actual case.
Left and right are patients orientation.*

Structure of Gafchromic film, type XR-RV3 film



Visual comparison tablet available

Dose Range	Energy Range	Size	Configuration	Layer	Thickness
0.1 cGy to 20 cGy	~20 kVp to 200 kVp	14" x 17"	4-layer laminate, substrate – adhesive layer – active layer – substrate	Yellow polyester Adhesive layer Active layer White polyester	97 microns 20 microns 17 microns 97 microns

