

# 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-CT2 film** – film measures beam slice width in CT scanner

**Gafchromic XR-M2 film** – film for mammography QA test

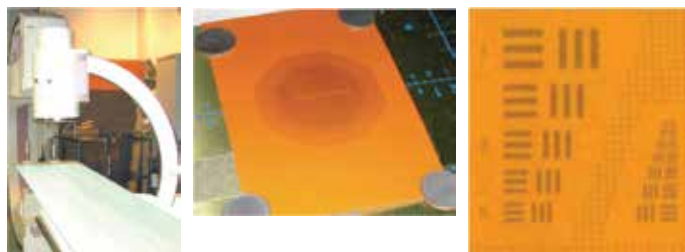
**Gafchromic XR-RV3 film** – film for peak skin dose measurement

## 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

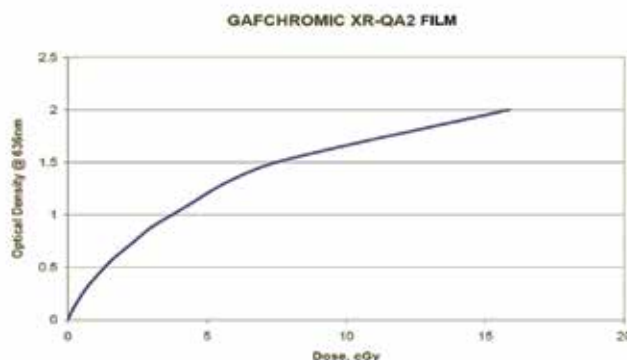
State-of-the-art quality production techniques for Gafchromic XR-QA2 film assure consistent and reliable high contrast results, with imaging detail at greater than 5000 dpi. Results are easy to read; and data is easy to understand.



### 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.*

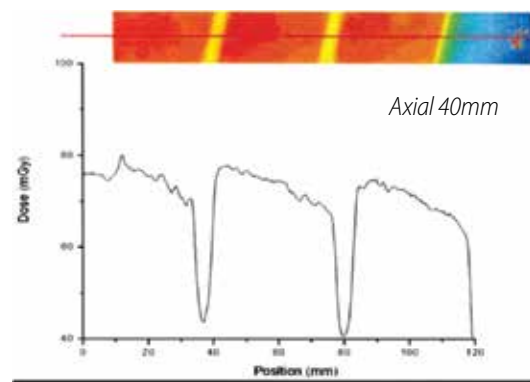
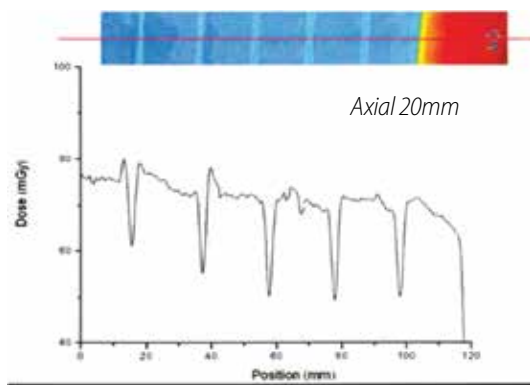
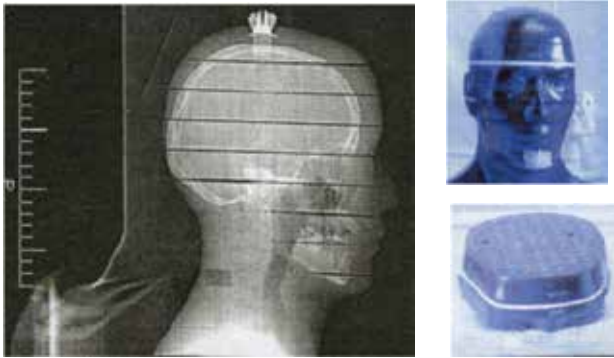
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## Gafchromic™ XR-QA2 dosimetry film applications

### Head phantom dosimetry application

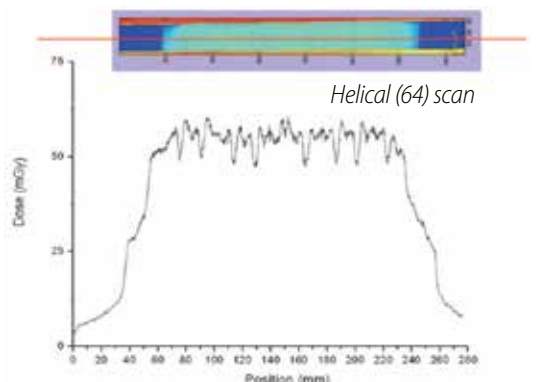
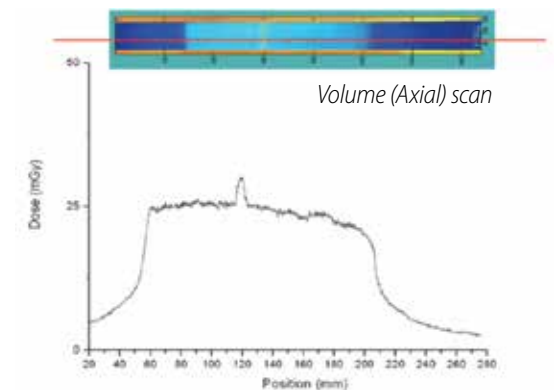
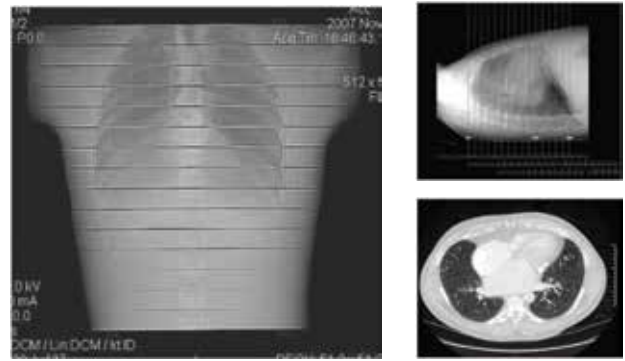
Typical head phantom radiation analysis. Gafchromic XR-QA2 film is easy to use, cost effective, and compatible with a wide variety of phantoms.



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

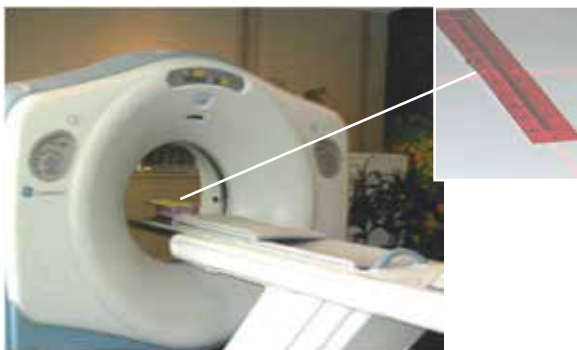
### Structure of Gafchromic XR Film

## 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:

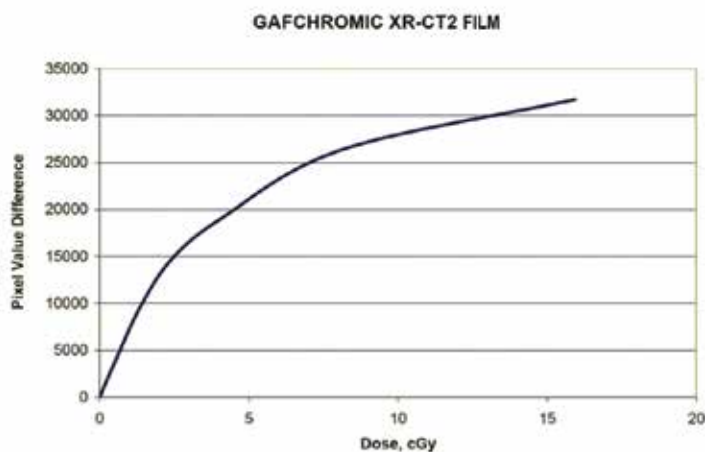
- Excellent for CT QA
- High data integrity
- Self-developing in real time
- Improved contrast
- Instant calibration results
- Easy to use
- Cost effective



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

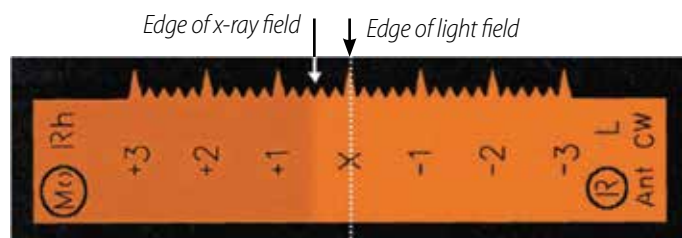
Actual film layer thickness may vary slightly.

## 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:

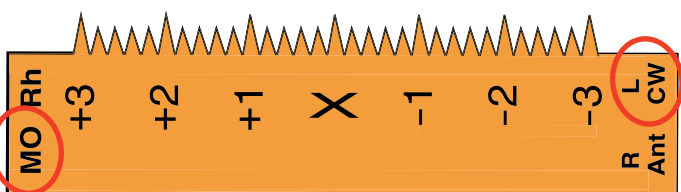
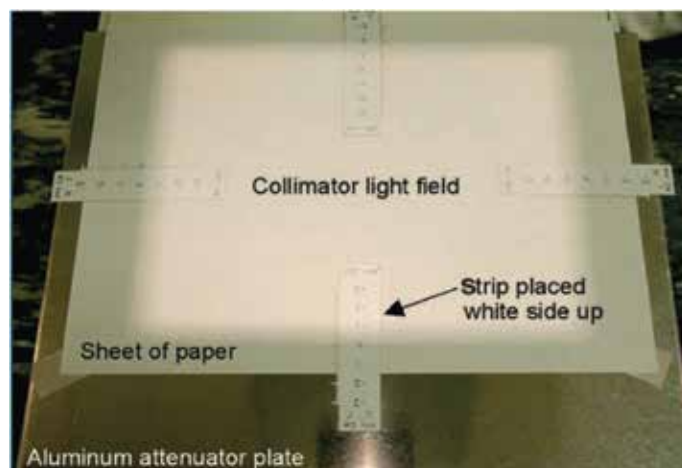
- High data integrity
- Real time self-developing
- Improved contrast
- Instant calibration results
- Sensitive dose range 0.1 cGy to 20 cGy
- Easy to use, cost effective



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

### Equipment setup for making the collimation assessment



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.

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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

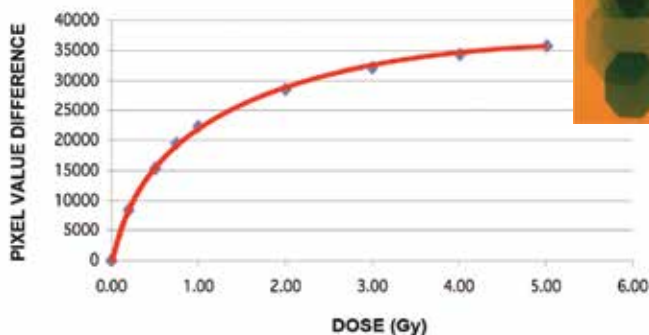
Gafchromic XR-RV3 film, specially formatted for skin dose measurement, measures surface peak skin dose in interventional procedures guided by fluoroscopy. Sheet size 14" x 17".



### 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

Yellow Polyester - 97 microns
Pressure Sensitive Adhesive - 20 microns
Active Layer - 17 microns
White Polyester - 97 microns



*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

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