# 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

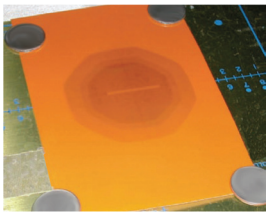
**Gafchromic XR-RV3 film** – film for peak skin dose measurement

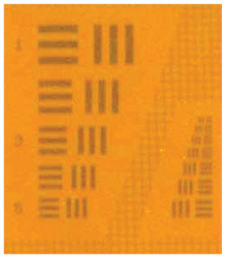
# Gafchromic XR-QA2 film

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.

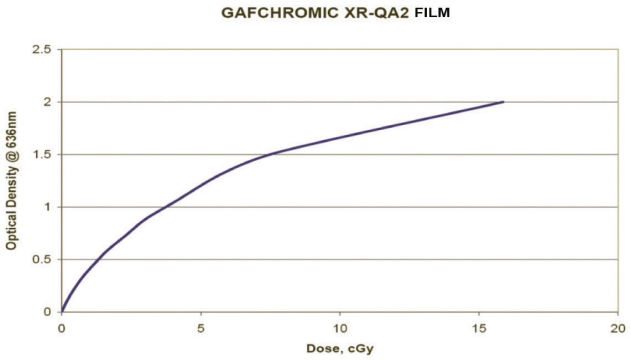




### Features:

- 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**



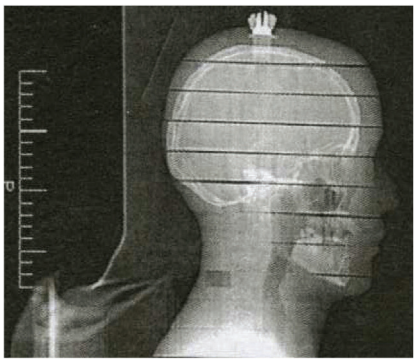

| Dose Range | Energy Range | Configuration | Layer | Thickness |
|---|---|---|---|---|
| 0.1 cGy to 20 cGy | ~20 kVp to 200 kVp | 4-layer laminate, substrate – adhesive layer – active layer – substrate | Yellow polyester<br>Adhesive layer<br>Active layer<br>White polyester | 97 microns<br>20 microns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

*Actual film layer thickness may vary slightly.*

## Gafchromic™ XR-QA2 dosimetry film applications

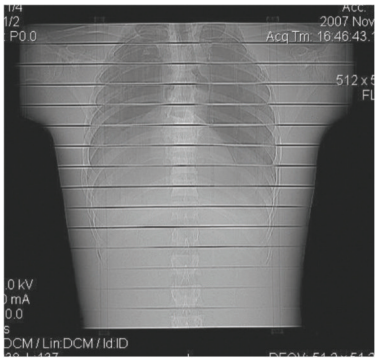
### Head phantom dosimetry application

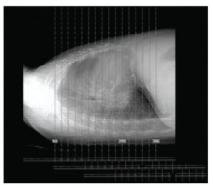
Typical head phantom radiation analysis. Gafchromic XR-QA2 film is easy to use, cost effective, and compatible with a wide variety of phantoms.

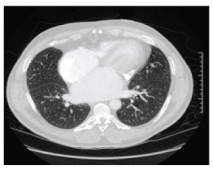


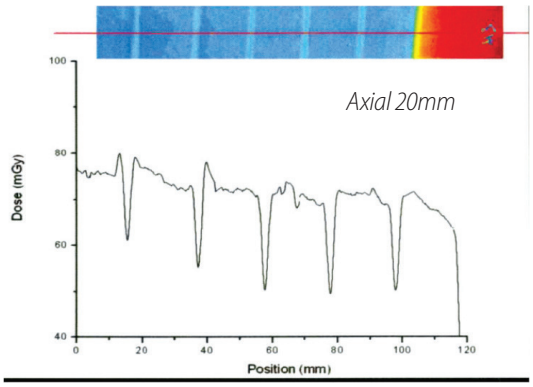
### Chest phantom dosimetry application

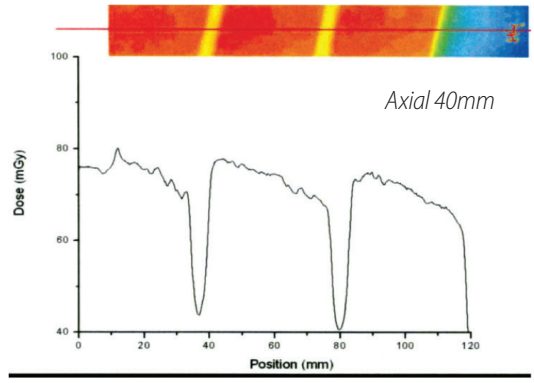
Typical chest radiation analysis. Results taken from an in vivo study for a chest exam with 64 slices made with a CT scanner.



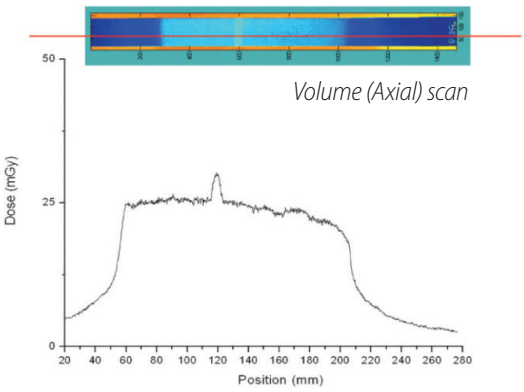



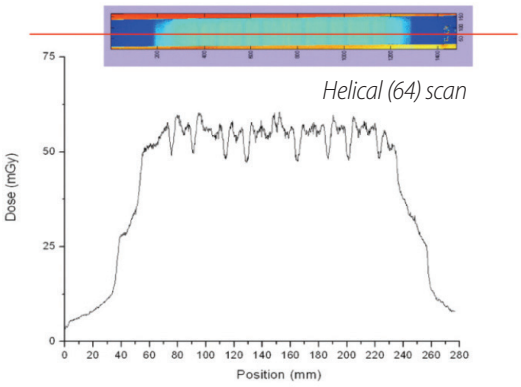





*Actual results showing a strip of the Gafchromic XR-QA2 film for a typical phantom exposure*




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

### Structure of Gafchromic XR Film

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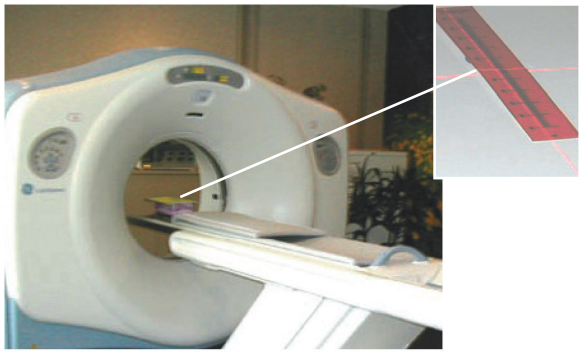
# Gafchromic XR-CT2 film

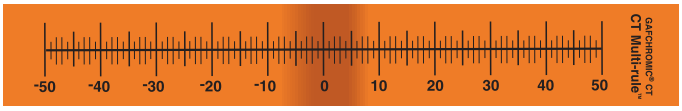
Gafchromic XR-CT2 film is designed for measuring radiation beam slice width on CT scanners in real time. It calibrates the beam slice with high accuracy and superior data integrity, and self-develops in a processor-less environment. Gafchromic XR-CT2 film comes individually boxed, 50 strips per package.

### Features:

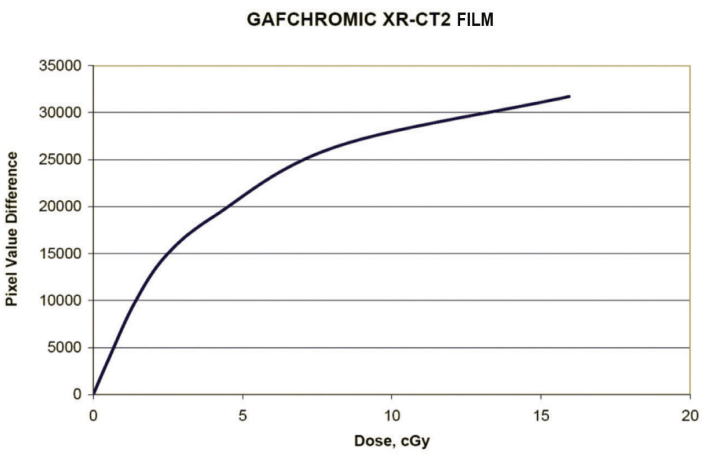
- Excellent for CT QA
- High data integrity
- Self-developing in real time
- Improved contrast
- Instant calibration results
- Easy to use
- Cost effective



*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<br>Adhesive layer<br>Active layer<br>White polyester | 97 microns<br>20 microns<br>25 microns<br>97 microns |

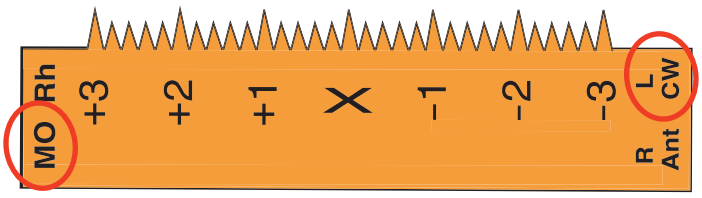
*Actual film layer thickness may vary slightly.*

# Gafchromic XR-M2 film

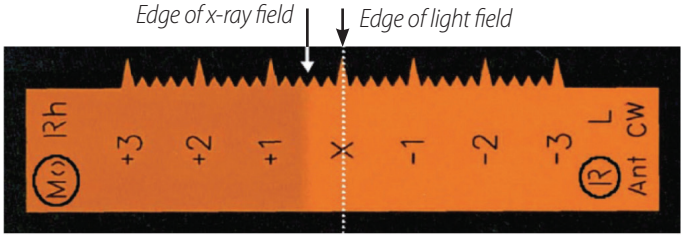
Gafchromic XR-M2 film is specifically conceived for mammography QA testing. Using a single strip of Gafchromic XR-M2 film, the location of the light field, the radiation field, plus the position of the detector with respect to each other, can all be determined. Packed 50 strips per box.

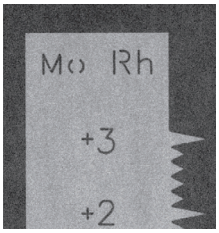
## Features:

- 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




*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.*

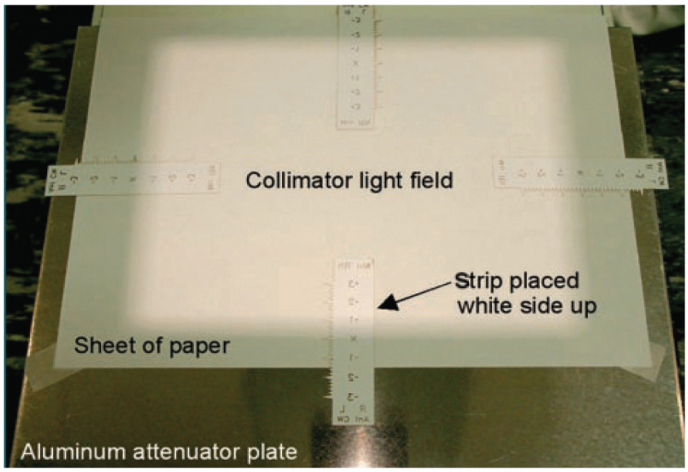



*Shown above: Illustrates the determination of the light field/X-ray field deviation. For this determination, the light field was aligned at the "X."*

*Shown left: Monitor image*

**Equipment setup for making the collimation assessment**



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ASHLAND

## 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<br>Adhesive layer<br>Active layer<br>White polyester | 97 microns<br>20 microns<br>25 microns<br>97 microns |

*Actual film layer thickness may vary slightly.*

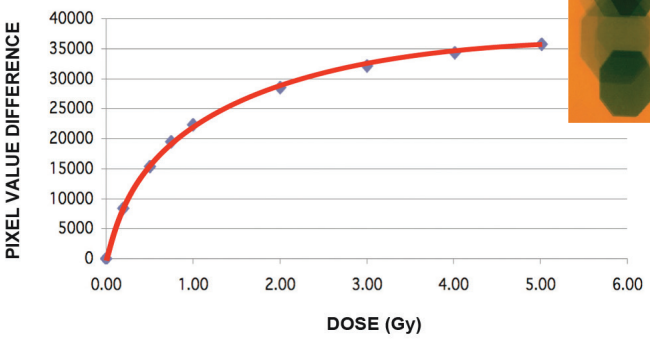
# Gafchromic XR-RV3 film

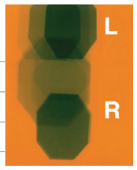
Gafchromic XR-RV3 film, specially formatted for skin dose measurement, measures surface peak skin dose in interventional procedures guided by fluoroscopy. Sheet size 14″ x 17″.

### 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

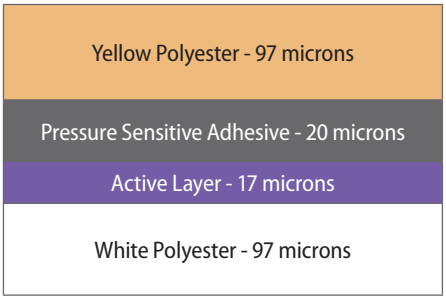
### Sensitometric response of Gafchromic film, type XR-RV3 film

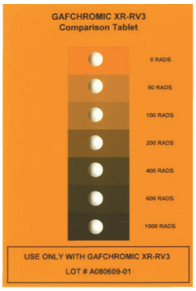



*Unitary embolization – actual case.*
*Left and right are patients orientation.*

### 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<br>Adhesive layer<br>Active layer<br>White polyester | 97 microns<br>20 microns<br>17 microns<br>97 microns |