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.
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.

Structure of Gafchromic XR Film

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

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.

<table>
<thead>
<tr>
<th>Dose Range</th>
<th>Energy Range</th>
<th>Size</th>
<th>Configuration</th>
<th>Layer</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1 cGy to 20 cGy</td>
<td>~20 kVp to 200 kVp</td>
<td>3/4” x 5”</td>
<td>4-layer laminate, substrate – adhesive layer – active layer – substrate</td>
<td>Yellow polyester</td>
<td>97 microns</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Adhesive layer</td>
<td>20 microns</td>
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<td></td>
<td></td>
<td>Active layer</td>
<td>25 microns</td>
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<td></td>
<td>White polyester</td>
<td>97 microns</td>
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</tbody>
</table>

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
Gafchromic™ XR-RV3 film (continued)

<table>
<thead>
<tr>
<th>Dose Range</th>
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<th>Size</th>
<th>Configuration</th>
<th>Layer</th>
<th>Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1 cGy to 20 cGy</td>
<td>~20 kVp to 200 kVp</td>
<td>1” x 3.5”</td>
<td>4-layer laminate, substrate – adhesive layer – active layer – substrate</td>
<td>Yellow polyester</td>
<td>97 microns</td>
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<td></td>
<td>Adhesive layer</td>
<td>20 microns</td>
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<td></td>
<td></td>
<td></td>
<td>Active layer</td>
<td>25 microns</td>
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<td></td>
<td></td>
<td></td>
<td>White polyester</td>
<td>97 microns</td>
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</tbody>
</table>

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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

Structure of Gafchromic film, type XR-RV3 film

Dose Range | Energy Range | Size       | Configuration                                                                 | Layer          | Thickness |
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<tbody>
<tr>
<td>0.1 cGy to 20 cGy</td>
<td>~20 kVp to 200 kVp</td>
<td>14” x 17”</td>
<td>4-layer laminate, substrate – adhesive layer – active layer – substrate</td>
<td>Yellow polyester</td>
<td>97 microns</td>
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<td>Adhesive layer</td>
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<td></td>
<td>Active layer</td>
<td>17 microns</td>
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<td></td>
<td></td>
<td>White polyester</td>
<td>97 microns</td>
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Visual comparison tablet available