



# Precision Cut EBT3 GafChromic™ Film

1582 Series

**CONTACT CUSTOMER SERVICE TO ORDER FILM CUT TO YOUR SPECIFIC PHANTOM CONFIGURATION. SEE BACK FOR PART NUMBERS. CUSTOM FILM AVAILABLE BY QUOTATION.**

## **BENEFITS OF PRECISION CUT FILM**

Unlike dosimeters, radiochromic film provides a means of measuring true 2D dose distribution within a region of interest. For small field dosimetry, film offers a unique advantage over dosimeters because of its high spatial resolution and dynamic range<sup>1</sup>. These qualities make film a popular solution in many radiotherapy departments.

However, cutting film for use in phantoms can be a tedious task. To save valuable time for clinicians and researchers, CIRS now offers Precision Cut radiochromic film.

## **FILM CONFIGURATIONS**

CIRS Precision Cut Film is laser cut and designed to fit within the constructs of a specified phantom. CIRS currently has film configurations for the following phantom models or its components:

- E2E SBRT Phantom with Removable Spine, Model 036S & 036-01
- SRS Multi-Lesion QA Phantom, Model 037
- Stereotactic End-to-End Verification Phantom, Model 038
- IMRT Phantoms, Model 002 Series
- Dynamic Thorax Phantom, Model 008A

For schematics and orientation directions of films cut for these products, please see page 2. Additional film configurations can be cut on a custom basis. Please contact CIRS for more information.

## **CARE AND HANDLING**

Great care is taken in handling all film, including maintaining film orientation, minimal exposure to UV light, and shielding from skin oils and environmental effects. While film can withstand limited exposure to interior light<sup>2</sup>, it is recommended that film be stored in provided envelopes and packaging to avoid noticeable effects.

Prior to using film, please refer to Excess Temperature Indicator provided in film packaging. If the small box in the center of the indicator is white, film is acceptable for use. If the box is black, the film package has been overheated during transport. Please contact CIRS Customer Service.

## **USE OF FILM**

Each film package includes six calibration strips, which are manufactured from the same lot as Precision Cut film. Calibration of the film can be done once for all included films.

All film must be oriented in the same direction in order to ensure accurate measurements. Refer to page 2 for the correct orientation of calibration strips and pre-cut film.

## **ADDITIONAL INFORMATION**

For more information on EBT3 GafChromic Film including calibration process, material specification, and handling, please refer to the Ashland website.

[http://www.ashland.com/Ashland/Content/Documents/ASI/Other-Medical/EBT3\\_Specifications.pdf](http://www.ashland.com/Ashland/Content/Documents/ASI/Other-Medical/EBT3_Specifications.pdf)

## **REFERENCES**

1. Martin J Butson, Peter K.N Yu, Tsang Cheung, Peter Metcalfe, Radiochromic film for medical radiation dosimetry, Materials Science and Engineering: R: Reports, Volume 41, Issues 3–5, 25 September 2003, Pages 61-120, ISSN 0927-796X, [http://dx.doi.org/10.1016/S0927-796X\(03\)00034-2](http://dx.doi.org/10.1016/S0927-796X(03)00034-2).
2. Gafchromic™ Dosimetry Media, Type Ebt-3. [http://www.ashland.com/Ashland/Content/Documents/ASI/Other-Medical/EBT3\\_Specifications.pdf](http://www.ashland.com/Ashland/Content/Documents/ASI/Other-Medical/EBT3_Specifications.pdf)

# CIRS

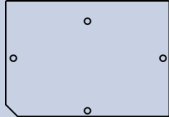
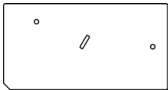
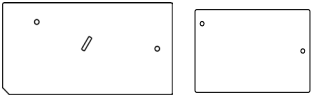
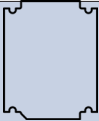
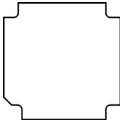
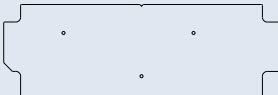
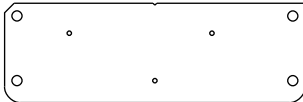
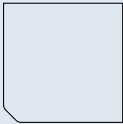
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**ORIENTATION DIRECTIONS**

All calibration strips and film must be oriented in the same direction in order to ensure accurate measurements. Numbers on calibration strips are placed in the bottom left corner to identify the correct orientation. All other films should be positioned with the notch located in the bottom left corner. Refer to the schematics below for correct orientation of precision cut film.

**SCHEMATICS AND ORDERING INFORMATION**

**Please reference the following part numbers when ordering CIRS Precision Cut EBT3 Films.**

MODEL NUMBER	DESCRIPTION	SCHEMATIC/ ORIENTATION	SIZES
158200-02	Precision Cut EBT3 Film Kit for Model 036-01 (Set of 4 inserts plus 6 calibration strips)		5" x 7"
158200-04	Precision Cut EBT3 Film Kit for Model 036A (Set of 10 inserts plus 6 calibration strips)		5" x 2.5"
158200-25	Precision Cut EBT3 Film Kit for Model 036S (Set of 18 spine inserts and 12 lung inserts plus 6 calibration strips)		5" x 2.5" 4" x 2.5"
158200-07	Precision Cut EBT3 Film Kit for Model 037 (Set of 2 inserts plus 6 calibration strips)		7.5" x 6"
158200-09	Precision Cut EBT3 Film Kit for Model 038-05, 038-21, 002FC (Set of 25 inserts plus 6 calibration strips)		2.5" x 2.5"
158200-26	Precision Cut EBT3 Film Kit for Model 008A-08 (Set of 12 inserts plus 6 calibration strips)		6.25" x 2"
158200-27	Precision Cut EBT3 Film Kit for Model 008A-22 (Set of 12 inserts plus 6 calibration strips)		6.25" x 2"
158200-28	Precision Cut EBT3 Film Kit for Model 038-27 (Set of 30 inserts plus 6 calibration strips)		2" x 2"

