

gafchromic™

film point dose system

an innovative solution to a pressing need

Understanding patient exposure to radiation therapies is critical. There is a pressing need for alternative point dose measurement techniques. Gafchromic™ film point dose system addresses this need as well as ancillary applications.

key features and benefits

- efficient and precise point dose measurement ($\pm 2\%$ difference)
- easy to calibrate
- reproducible point dose measurement with gafchromic™ film
- FilmQA Pro™ software v.7 One-Scan Protocol: efficient and speedy results
- software with a user-friendly interface and a quick start menu

When it comes to accurately measuring radiation dosage, gafchromic™ film point dose system offers best-in-class performance that is defined not only by high accuracy but also by high resolution, angular independence, speed, and consistent reproducibility.

gafchromic™ film point dose system is an integrated solution for point dose measurement that includes gafchromic™ film point dose + FilmQA Pro™ Software v.7 + film scanner. It is easy to adopt and implement.



When used with FilmQA Pro™ software v.7, gafchromic™ film point dose system provides a complete and accurate dosimetry measurement. High-resolution images ensure the data integrity necessary to achieve confidence and peace of mind for the physicist and the patient. FilmQA Pro™ software v.7 incorporates features that increase speed of measurement via One-Scan Protocol that combines calibration and plan verification in a single scan.



Initial results — rapid prototyping and field test validation

Using a traditional clinical linear accelerator (LINAC) setup, gafchromic™ film point dose module was irradiated to create a calibration curve using 6 MV at depth 5 cm.

Test film point doses were then irradiated employing varying test configurations.

Using the most common treatment dose (300 cGy), gafchromic™ film point dose modules were irradiated. In all test configurations, the measured point doses were well within a ±2% difference.

table 1:

test configurations	actual dose, cGy	measured dose, cGy	% difference
6 MV (depth = 1.5 cm)	300	295.3	1.57%
15 MV (depth = 3 cm)	300	297.6	0.80%
6 e (depth = 1.5 cm)	300	294.8	1.73%
9 e (depth = 2 cm)	300	301.3	0.43%

Disclaimer: Gafchromic™ film point dose system is currently under development. Ashland will provide prototype samples for research and development evaluation purposes only.

easy as 1 – 2 – 3

expose

scan

measure

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