



### FWT-60-00 Batch Characterization

Batch 1121

#### Typical Calibration Curve

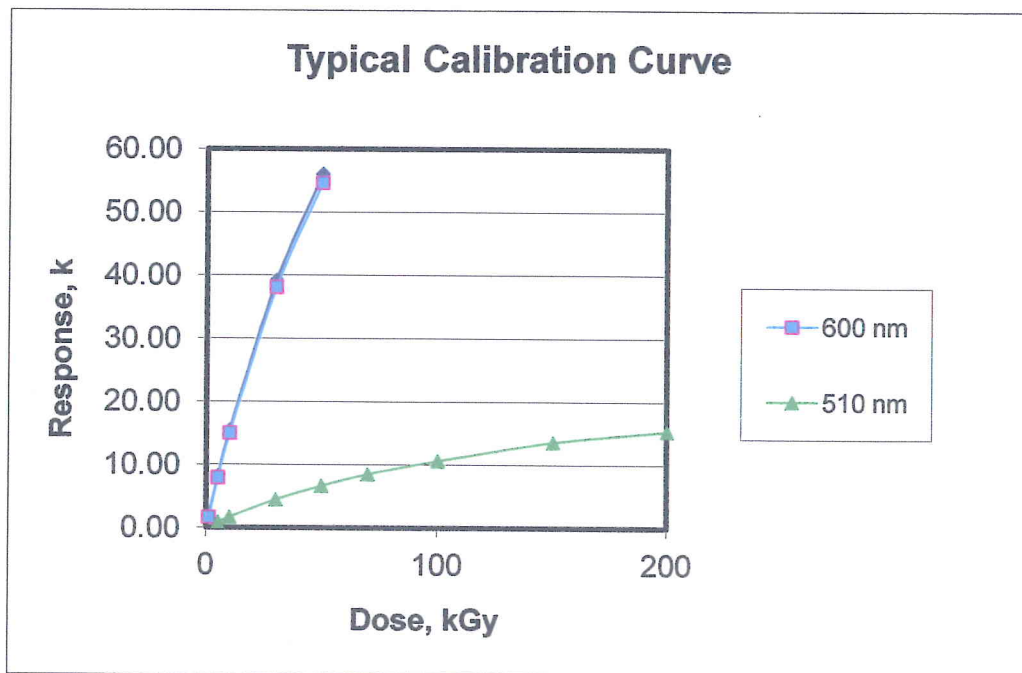
(Dosimeters pre-conditioned to 20 °C and 50%RH)

Dose, kGy	k, mm <sup>-1</sup> at 605 nm	k, mm <sup>-1</sup> at 600 nm	k, mm <sup>-1</sup> at 510 nm
1	1.77	1.71	
5	8.26	8.00	0.90
10	15.53	15.05	1.71
30	39.25	38.18	4.52
50	56.08	54.70	6.71
70			8.57
100			10.68
150			13.65
200			15.39

#### Coefficient of Variation of k

605 nm	600 nm	510 nm
1.7%	1.7%	1.7%

Note: k is the specific absorbance and is determined from the thickness, t, and final and initial absorbances Af and Ai:  
 $k = (A_f - A_i) / t$ .



This typical calibration curve is provided as a guide to the response of FWT-60-00 Radiachromic Detectors to ionizing radiation. Actual response also depends on processing parameters and on the instrumentation used to measure absorbancies and thicknesses.

Scott A Larson  
 Authorization for Release

21 August 2012  
 Date



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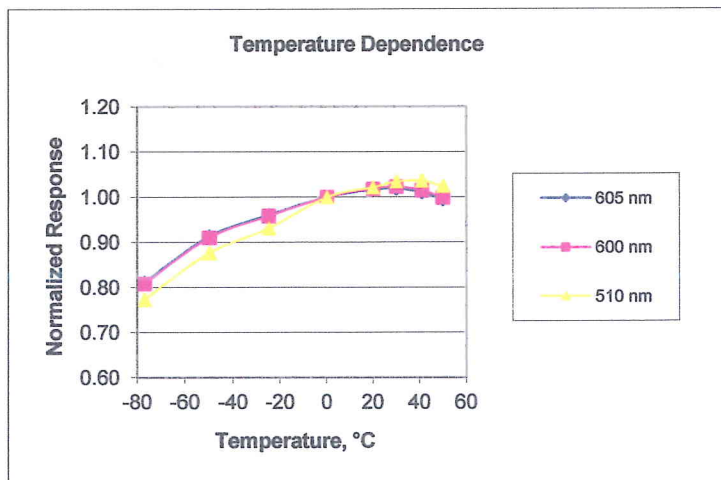
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#### Temperature Dependence

(Dosimeters pre-conditioned to 20 °C and 50%RH)

T, °C	k, mm <sup>-1</sup> at 605 nm	k, mm <sup>-1</sup> at 600 nm	k, mm <sup>-1</sup> at 510 nm
-77	31.75	30.77	3.48
-50	35.74	34.64	3.95
-25	37.59	36.46	4.20
0	39.15	38.05	4.51
20	39.81	38.72	4.60
30	39.89	38.92	4.66
41	39.58	38.60	4.67
50	38.97	37.99	4.61

T, °C	Norm. k at 605 nm	Norm k at 600 nm	Norm k at 510 nm
-77	0.81	0.81	0.77
-50	0.91	0.91	0.88
-25	0.96	0.96	0.93
0	1.00	1.00	1.00
20	1.02	1.02	1.02
30	1.02	1.02	1.03
41	1.01	1.01	1.04
50	1.00	1.00	1.02



#### Humidity Dependence

(Dosimeters pre-conditioned to the indicated humidity at 20 °C)

%RH	k, mm <sup>-1</sup> at 605 nm	k, mm <sup>-1</sup> at 600 nm	k, mm <sup>-1</sup> at 510 nm
29	40.35	39.38	4.84
40	39.91	38.96	4.73
44	39.08	38.15	4.60
50	38.32	37.40	4.51
55	37.14	36.22	4.39
60	35.52	34.63	4.31

%RH	Norm. k at 605 nm	Norm k at 600 nm	Norm k at 510 nm
29	1.03	1.05	1.07
40	1.02	1.04	1.05
44	1.00	1.02	1.02
50	0.98	1.00	1.00
55	0.95	0.97	0.97
60	0.90	0.93	0.95

