Precise Measurement. Proven Performance.

FWT
FAR WEST TECHNOLOGY

Tel: +1.805.964.3615 info@fwt.com
Fax: +1.805.964.3162 www.fwt.com
330 Kellogg Avenue, Suite D, Goleta, CA 93117 U.S.A.

FWT-60-00 Batch Characterization
Batch 1173

Typical Calibration Curve

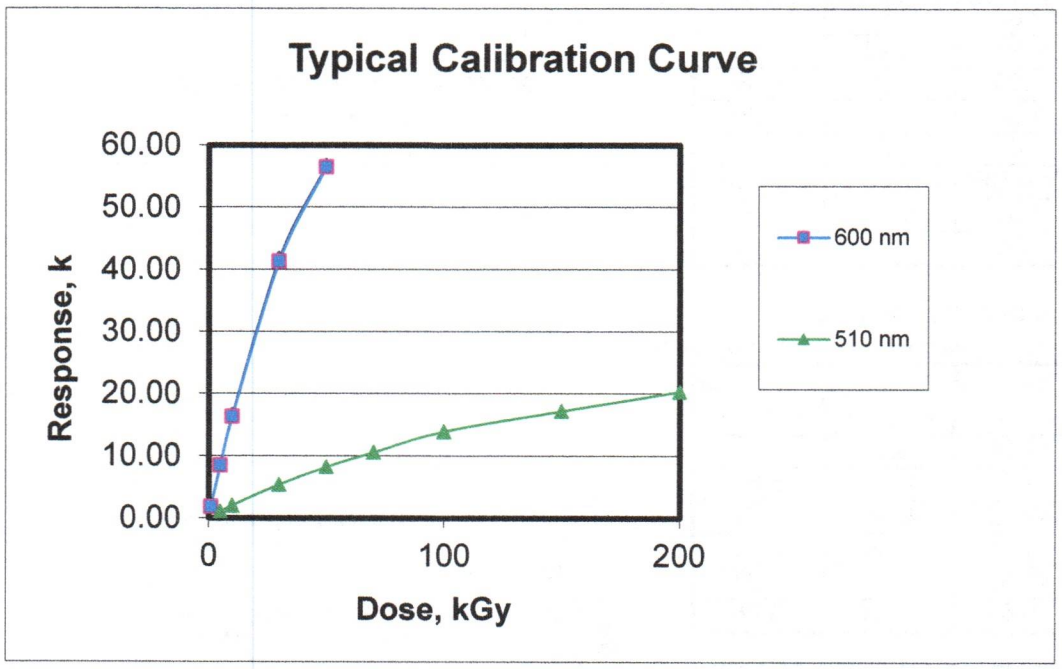
(Dosimeters pre-conditioned to 20 °C and 50%RH)

Dose, kGy	k, mm^{-1} at 605 nm	k, mm^{-1} at 600 nm	k, mm^{-1} at 510 nm
1	1.85	1.81	
5	8.62	8.48	1.06
10	16.54	16.29	2.06
30	41.81	41.33	5.38
50	56.68	56.42	8.24
70			10.61
100			13.91
150			17.19
200			20.31

Coefficient of Variation of k

605 nm	600 nm	510 nm
1.4%	1.2%	1.2%

Note: k is the specific absorbance and is determined from the thickness, t, and final and initial absorbances Af and Ai: k = (Af - Ai) / 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 Faw
Authorization for Release

12/15/2023
Date

FWT
FAR WEST TECHNOLOGY

Tel: +1.805.964.3615 info@fwt.com
Fax: +1.805.964.3162 www.fwt.com
330 Kellogg Avenue, Suite D, Goleta, CA 93117 U.S.A.

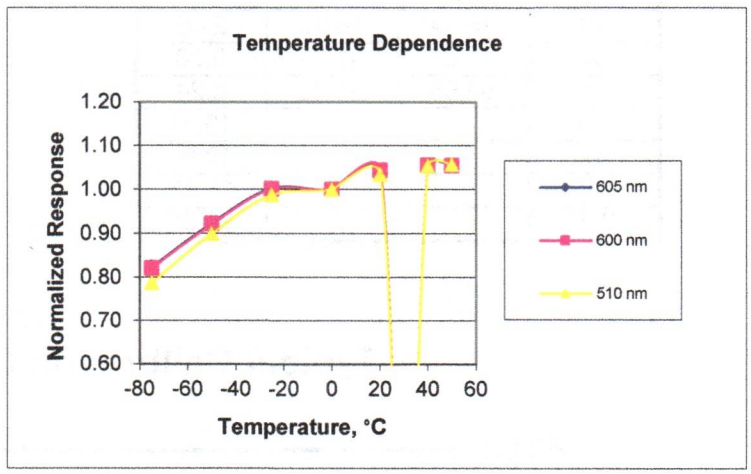
FWT-60-00 Batch Characterization
Batch 1173

Temperature Dependence

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

T, °C	k, mm^{-1} at 605 nm	k, mm^{-1} at 600 nm	k, mm^{-1} at 510 nm
-75	33.09	32.51	4.02
-50	37.14	36.52	4.60
-25	40.32	39.67	5.05
0	40.21	39.61	5.11
20	41.94	41.36	5.29
30	NA	NA	NA
40	42.41	41.83	5.38
50	42.40	41.79	5.40

T, °C	Norm. k at 605 nm	Norm k at 600 nm	Norm k at 510 nm
-75	0.82	0.82	0.79
-50	0.92	0.92	0.90
-25	1.00	1.00	0.99
0	1.00	1.00	1.00
20	1.04	1.04	1.03
30	#VALUE!	#VALUE!	#VALUE!
40	1.05	1.06	1.05
50	1.05	1.05	1.06



Humidity Dependence

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

%RH	k, mm^{-1} at 605 nm	k, mm^{-1} at 600 nm	k, mm^{-1} at 510 nm
30	42.98	42.50	5.71
40	42.94	42.46	5.61
45	42.72	42.24	5.54
50	41.84	41.36	5.41
55	40.65	40.16	5.21
60	39.69	39.20	5.08

%RH	Norm. k at 605 nm	Norm k at 600 nm	Norm k at 510 nm
30	1.03	1.03	1.06
40	1.03	1.03	1.04
45	1.02	1.02	1.02
50	1.00	1.00	1.00
55	0.97	0.97	0.96
60	0.95	0.95	0.94