

Tissue Equivalent Breast Phantoms



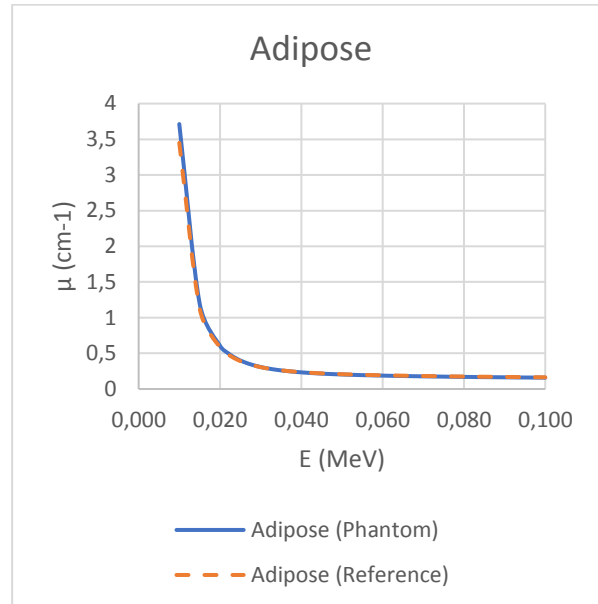
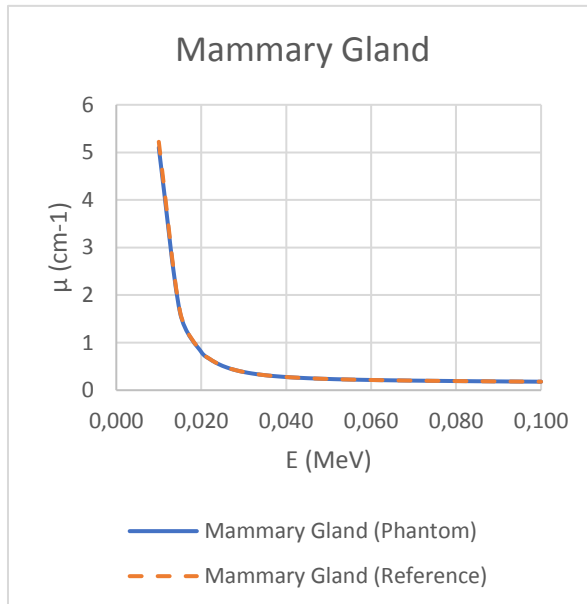
Size	Approx. 15 x 11 x 3.6 cm
Weight	Approx. 0.5 kg

Phantom available as one-piece anthropomorphic phantom or in a sectional design (four slabs of 0.9 cm thickness). The phantom comes with a magnetic mount for positioning of the phantom slabs.

Materials mimic photon absorption characteristics of human glandular and adipose tissue.

Energy [MeV]	Linear attenuation coefficients [cm^{-1}] (calculated)			
	Adipose tissue		Mammary Gland	
	Reference ¹	PhantomX	Reference ¹	PhantomX
0.010	3.450	3.713	5.222	5.097
0.020	0.584	0.607	0.809	0.804
0.030	0.306	0.309	0.383	0.383
0.040	0.236	0.233	0.277	0.277
0.050	0.208	0.204	0.236	0.236
0.060	0.192	0.188	0.215	0.215
0.070	0.182	0.177	0.202	0.202
0.080	0.175	0.17	0.192	0.192
0.090	0.169	0.164	0.185	0.185
0.100	0.164	0.159	0.179	0.179
Density [g/cm^3]	0.97	0.97	1.06	1.09

- [1] Woodard HQ. White DR. The composition of body tissues. Br J Radiol. 1986;59(708):1209-18.
- [2] Graff CG. A new, open-source, multi-modality digital breast phantom. SPIE Medical Imaging: SPIE. 2016; p. 10.
- [3] Ikejimba LC. Graff CG. Rosenthal S. et al. A novel physical anthropomorphic breast phantom for 2D and 3D x-ray imaging. Med Phys. 2017;44(2):407-16.



General indications

- Phantoms are manufactured of a cellulose-polymer composite material with similar properties to hardwood. If treated carefully, they will last for a long period.
- The phantoms are coated with a protective layer. If the protective layer is unharmed, the phantoms can be cleaned using a damp cloth (water or mild detergent).
- Protect from direct sunlight.
- Maintain a storage temperature of 10 °C to 30 °C.
- If the phantom is exposed to temperatures below 0 °C or above 60 °C, even for a short period of time, it can be seriously damaged.