SWX-262 Gamma Putty
Technical Information

SWX-262 Gamma Putty is typically used for shielding gamma streaming paths in small irregularly shaped spaces for temporary as well as semi-permanent applications. It will not crack or dry out under normal environmental conditions.

Applications: Gamma Shielding

Typical Uses: Shielding irregular spaces, wire/conduit and cable tray penetrations, radiographic film masking to prevent undercutting and radiation scattering.

Shielding Effectiveness For Various Types of Radiation:

Thermal Neutrons	-	poor
Fast Neutrons	-	good
Gammas	-	excellent

Temperature Limit: 110°F (45°C)

Machinability: Poor

Forms and Sizes of Shielding: Bismuth-loaded low-density polyethylene putty, available in 10-lb. (4.5 kg) cans. Non-hardening, reusable, pliable, and will hold its shape after placement.

Radiation Resistance (structural and shielding integrity):

Accumulated Gamma Radiation Exposure Limit: 5.0×10^{8} Rad
Accumulated Neutron Radiation Exposure Limit: 2.5×10^{17} n/cm^2

Density: 3.81 gram/cm^3 (238 lbs. / ft^3)

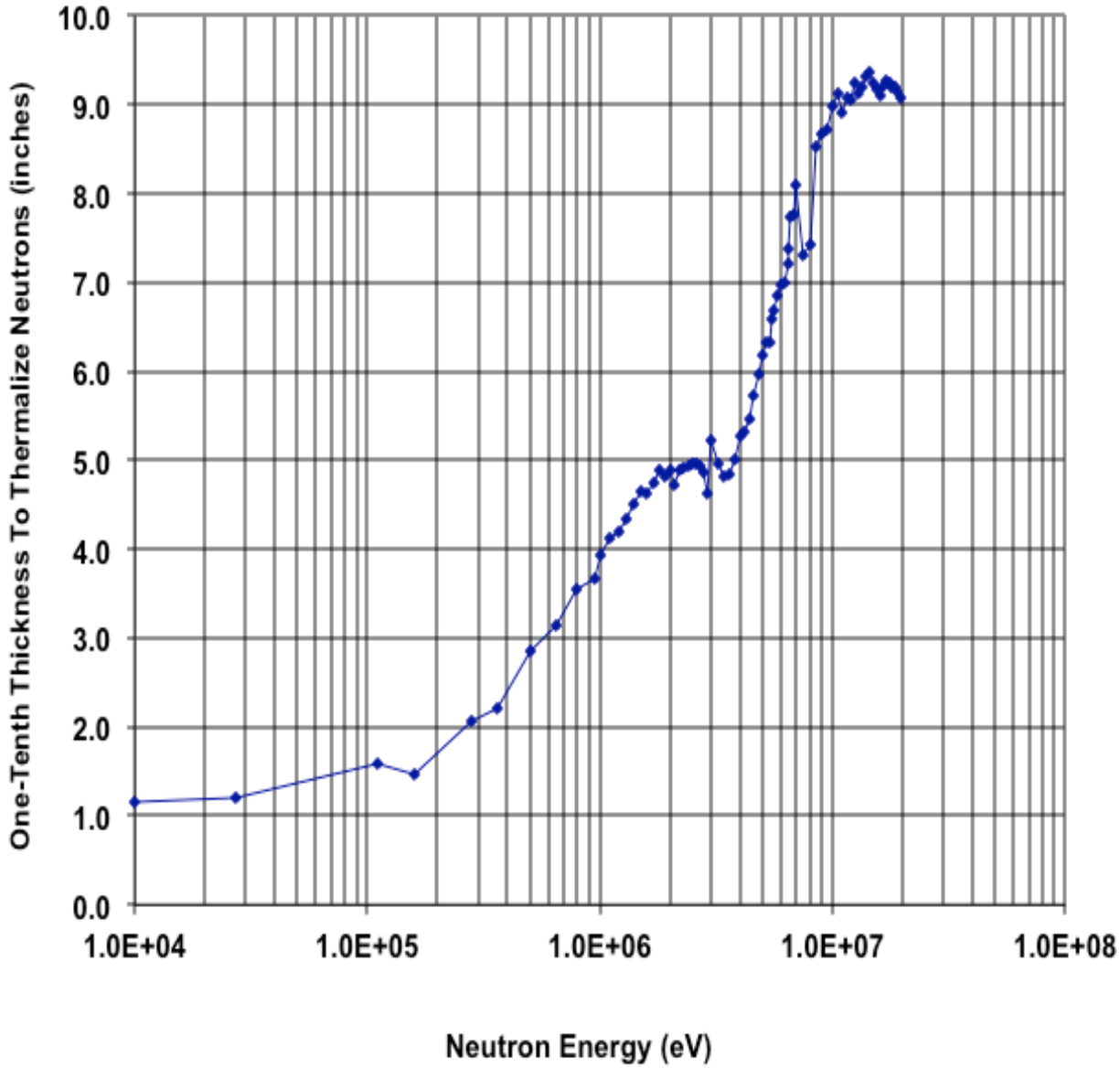
Thermal Neutron One-Tenth Thickness: 80.9 inches

Thickness of SWX-262 required to reduce incident flux of thermal neutrons by a factor of 10 (exit thermal flux is 10% of incident thermal flux**)**

Shieldwerx
A Division of Bladewerx LLC
4529 Arrowhead Ridge Dr. SE
Rio Rancho, NM 87124
Phone: (505) 892-5144
Fax: (505) 890-8319

Neutron Moderation Characteristics

Thickness of SWX-262 required to reduce to thermal 90% of an incident neutron flux, as a function of initial neutron energy (exit epithermal flux is 10% of incident neutron flux)



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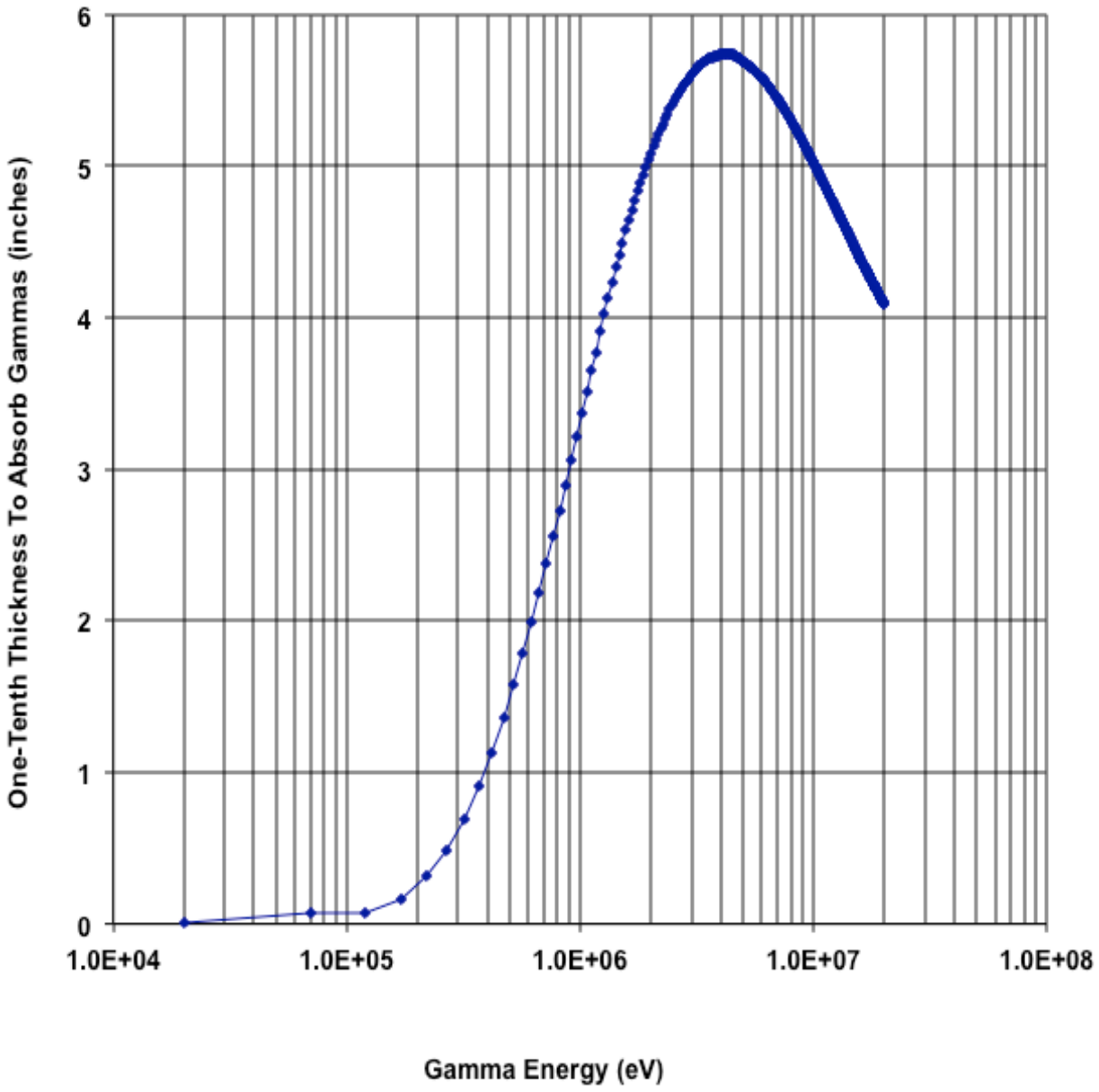
Gamma Attenuation Characteristics

Thickness of SWX-262 required to reduce an incident gamma flux by a factor of 10, as a function of incident gamma energy (exit gamma flux is 10% of incident gamma flux)



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Nominal Elemental Analysis

Element	Percent by Weight	Number of atoms/cc
Hydrogen	1.44	3.28×10^{22}
Carbon	8.56	1.64×10^{22}
Bismuth	90.0	9.89×10^{21}

Density	3.81 gram/cm^3

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