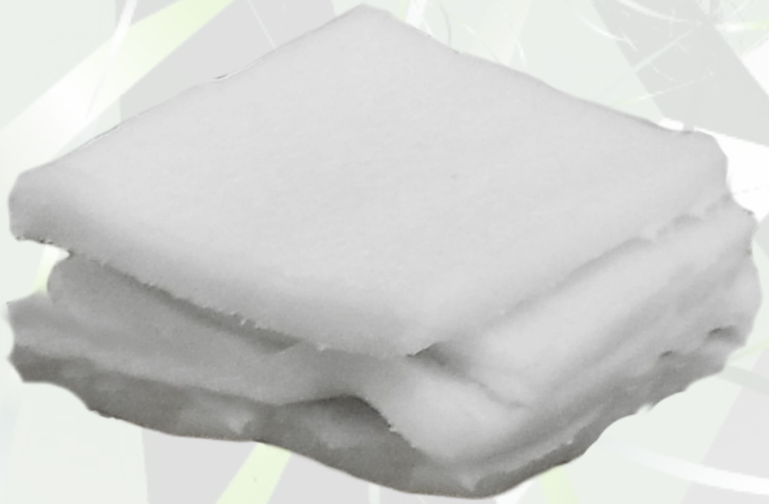
SWX-261
Neutron Putty

NEUTRON SHIELDING
CLAYS AND PUTTIES



SWX-261 Neutron Putty can be used for the collimation of neutrons and for reducing neutron streaming. It is a non-hardening, boron loaded LDPE putty that contains 10% boron combined with a high hydrogen content.

Neutron Putty can be kneaded by hand to obtain the desired consistency and workability. It can be softened by warming it up slightly for added workability. Disposable gloves are recommended when handling as the putty is quite sticky.

- **Neutron Putty contains 10% boron and high hydrogen content.**
- **A 1-cm thick layer has a thermal neutron attenuation factor of approximately 100**
- **Neutron Putty is non-hardening and will not dry out**
- **Provided in 8-lb (3.6 kg) cans**

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Specifications

Composition Data

Hydrogen atom density/ cm^3:	5.91×10^{22}
Hydrogen weight percent:	8.95 %
Boron atom density/ cm^3:	6.16×10^{21}
Boron natural isotope distribution:	19.6% ^{10}B and 80.4% ^{11}B
Boron weight percent:	10.0 %
Total Density	1.11 g / cm^3 (69 lbs / ft^3)

Radiation Properties

Macroscopic thermal neutron cross section:	4.67 cm^{-1}
Gamma resistance:	5×10^8 rad
Neutron resistance:	2.5×10^{17} n / cm^2

Physical Properties

State	Putty
Color	White
Odor	No significant odor
Machinability:	Poor

Thermal Properties

Recommended Temperature Limit:	110 °F (45 °C)

Chemical Properties

Chemical Name & Synonyms:	Borated poly putty (LDPE)
Trade Name & Synonyms:	SWX-261 Neutron Putty

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