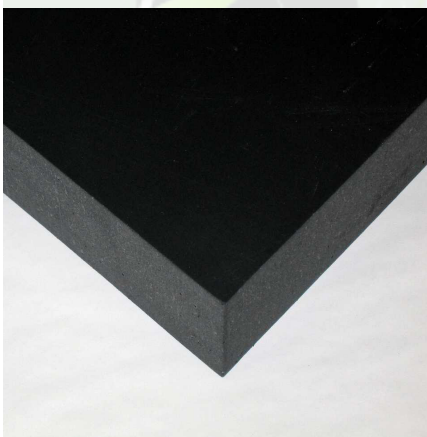
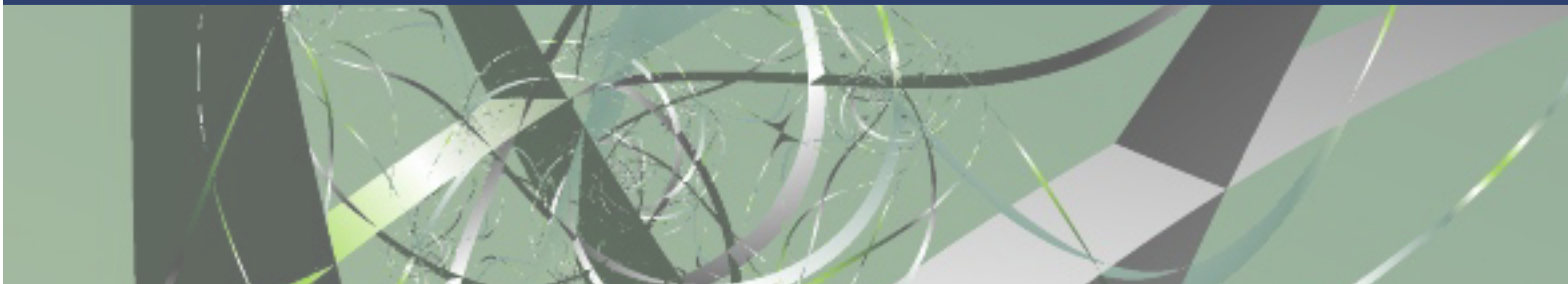


SWX-237Z41

High Temperature Boron-Silicone



SWX-237Z41 Boron-Silicone is a fire- and heat-resistant field-castable neutron shielding material. It is silicone elastomer based and has a high hydrogen content. The hydrogen content of SWX-237Z41 is 2/3 of that found in water and contains 1.4% boron for thermal neutron attenuation.

SWX-237Z41 is available in a variety of shapes and sizes. It has a hard rubber-like consistency that will minimize any impact due to secondary missile formation and is self-extinguishing.

SWX-237Z41 Boron-Silicone can be provided as a multi-part kit that is castable in the field or as pre-cast solid pieces made to your specifications. Recommended shelf-life of the mix kit is twelve months.



A field-castable multi-part liquid kit that is also available as custom-made pre-cast solid pieces



Contains 1.4% boron along with a high hydrogen content in a hard rubber-like elastomer

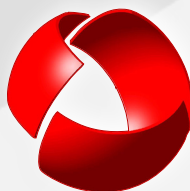


Fire and heat resistant



To cast 1 cubic foot of SWX-237Z41 requires 80 pounds of Boron-Silicone mix (1 liter requires 1.26 kilograms of Boron-Silicone mix)

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SWX-237Z41

High Temperature Boron-Silicone

Specifications

Composition Data

Hydrogen atom density/ cm ³ :	4.18 x 10 ²²
Natural isotope distribution:	99.98% ¹ H
Boron atom density/ cm ³ :	9.67 x 10 ²⁰
Natural isotope distribution:	19.6% ¹⁰ B and 80.4% ¹¹ B
Weight percent of all isotopes of boron:	1.38%
Total Density	1.26 g / cm ³ (78.7 lbs/ft ³)

Radiation Properties

Thermal Neutron 1/10 Thickness	1.22 inches
Gamma resistance:	1 x 10 ¹⁰ rad
Neutron resistance:	5 x 10 ¹⁸ n / cm ²

Physical Properties

State	Liquid mix or pre-cast solid
Color	Dark gray
Odor	no significant odor
Machinability:	Fair
Hardness:	Shore "A" Durometer Scale = 42-50

Thermal Properties

Recommended Temperature Limit:	400 °F (204.4 °C)
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Chemical Properties

Chemical Name & Synonyms:	Borated Silicone
Trade Name & Synonyms:	SWX-237
Chemical Family:	Silicone Monomer
Formula:	Mixture of silicone plus boron compound
Solubility in Water:	<1%



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