

The Virtual Foundry Launches Boron Carbide Filament for 3D Printable Neutron Shielding

New Boron Carbide Filament Offers High-Performance Neutron Absorption for 3D Printing Applications

MADISON, WI, UNITED STATES, January 15, 2025 /EINPresswire.com/ -- New Boron Carbide Filament Offers High-Performance Neutron Absorption for 3D Printing Applications

The Virtual Foundry, a leading innovator in advanced materials for 3D printing, today announced the launch of its Boron Carbide Filament, a groundbreaking product designed for neutron absorption applications. This new filament allows for the creation of custom 3D printed radiation shielding with unprecedented ease and precision, opening up new possibilities in fields like nuclear safety, medical imaging, and research.

Boron carbide, known for its exceptional neutron absorption properties, has traditionally been challenging to work with due to its hardness and high melting point. The Virtual Foundry's new filament overcomes these limitations by utilizing a proprietary formulation that allows for smooth extrusion and reliable printing on most Fused Filament Fabrication (FFF) 3D printers.

"This launch marks a significant step forward in accessible radiation shielding," says Brad Woods, Founder and CEO. "Boron Carbide Filament empowers researchers, engineers, and manufacturers to create custom solutions tailored to their specific needs. Imagine being able to rapidly prototype complex geometries for shielding components, or to produce lightweight, patient-specific shielding for medical treatments – this filament makes it possible."

Key features of the Boron Carbide Filament include:

High Boron Carbide Content: 50-60% for effective neutron attenuation



Optimal Density: 1.2-1.5g/cc for a balance of performance and printability

Standard Size: Available in 1.75mm diameter, 0.25kg spools for compatibility with a wide range of printers

Enhanced Design Freedom: Enables the creation of intricate shapes and complex geometries not possible with traditional manufacturing methods.

Available now!

To learn more and secure your order, visit <https://shop.thevirtualfoundry.com/products/rapid-3dshield-boron-carbide-3d-printing-filament>.

About The Virtual Foundry:

The Virtual Foundry is a pioneer in the development and manufacturing of high-performance materials for 3D printing. Committed to pushing the boundaries of additive manufacturing, The Virtual Foundry provides innovative solutions for a variety of industries, including aerospace, medical, and energy.

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