

VeriShield® HT

MODULAR RADIATION SHIELDING



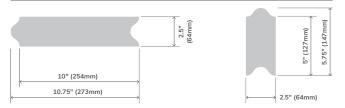
VeriShield radiation shielding components are individual modules combined together to form a composite structure to create the required radiation attenuating environment. The constructed system retains the ability to be deconstructed and reused.

attenuation at the joints. VeriShield construction requires half the space of mass concrete vaults.

VeriShield products are manufactured in a controlled environment and incorporate high Z aggregates (for photon attenuation) as well as neutron additive materials.

The VeriShield photon, neutron and electron shielding modules feature a design that presents a full 100% inter-locking edge. Lapping or alternating of the seams results in the prevention of straight line paths for radiation streaming. Modules interlock together to form a solid and stable structure.

V250HT



The VeriShield V250HT block is designed to allow the full thickness VeriShield V250 blocks to be offset 2-1/2" (64mm), which allows the sine-wave shapes to interlock. This results in additional structural strength of the stacked blocks.

Compressive strength is guaranteed to meet 2,800 psi. This product routinely easily surpasses this minimum and is typically on the order of 5,200 psi.

Standard VeriShield HT blocks are 2 1/2" x 5" x 10" $(64 \times 127 \times 254 \text{mm}).$

Veritas VeriShield® HT

VeriShield HT Shielding Modules are manufactured and packaged in a controlled environment and incorporate high Z aggregates (for photon attenuation) as well as neutron additive materials.

	V150HT	V220HT	V250HT
SIZE	2 1/2" x 5" x 10" – 64 x 127 x 254mm	2 1/2" x 5" x 10" – 64 x 127 x 254mm	2 1/2" x 5" x 10" – 64 x 127 x 254mm
WEIGHT PER MODULE	10.75 lbs 4.88kg	15.75 lbs. – 7.1 kg	18 lbs – 8.2 kg
DENSITY	2.4 g/cu.cm (median)	3.5 g/cu.cm (median)	4 g/cu. cm (median)
COMPRESSIVE STRENGTH	3,000 psi - 211 kgf/cm2	>4,800 psi - 337 kgf/cm2	>5,200 psi - 366 kgf/cm2
SOLUBILITY	Insoluble	Insoluble	Insoluble
REACTIVITY	Non-Reactive	Non-Reactive	Non-Reactive
MELTING POINT	^2,800°F - 1,538°C	^2,800°F - 1,538°C	^2,800°F - 1,538°C
BOILING POINT	N/A	N/A	N/A

COMPOSITION INFORMATION

Major Compounds

Chemical Name CAS Registry Number
Portland Cement *65997-15-1
Gypsum (calcium sulfate) 13397-24-5

* May contain crystalline silica 14808-60-7

PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point N/A
Vapor Pressure (mm Hg) N/A
Melting Point N/A
Vapor Density (AIR-1) N/A
Evaporation Rate N/A
Solubility in Water N/A

Appearance & Odor Grey; no odor

REACTIVITY DATA

Stability: Stable



RADIATION ATTENUATION

Attenuation is based on interpolated data for some energies. The listed TVL's represent the average tenth value thickness after 5 decades of attenuation. First TVT and equilibrium TVL's may be available for thin barrier sections.

Veritas will provide calculations with appropriate safety factors to ensure attenuation requirements are met.

Please refer to individual VeriShield data sheets for specific radiation attenuation figures.

