

SOLID WATER[®] HE & TMM

Water Equivalent and
Tissue Mimicking Materials Without Compromise



GAMMEX

SOLID WATER® HE

Solid Water HE (High Equivalency) is the next generation of water mimicking material pioneered by Gammex. Solid Water HE uses new patent-pending technology that more accurately mimics true water within 0.5% for therapeutic and diagnostic energies. Finally - no more compromises between therapy, imaging, quality, and convenience.

Radiation therapy and diagnostic modalities are continuously advancing and promise the potential for earlier diagnosis and more effective treatments. These new modalities must be implemented carefully and monitored closely to ensure the results match the expectations. With improved uniformity and durability, Solid Water HE helps to keep your quality assurance precise, accurate and effective, and in turn the advanced treatment and diagnostic techniques for which you are responsible.

Leading Uniformity

- Improved uniformity and reduced variation compared to other water mimicking formulations
- No streaks or stripes for more consistent and accurate results in imaging and therapeutic quality assurance

Leading Durability

- Unique Nanosphere technology offers a combination of high strength and water equivalence
- Increased strength and durability allows manufacturing of slabs as thin as 1.0 mm
- Longer lifespan from increased durability and resistance to scratches and chipping

Leading Versatility

- Designed for both diagnostic and therapeutic energy ranges
- No need for different stacks of water mimicking materials rated at different energy ranges
- Solid Water HE is the only water mimicking material you will need

Specifications

Depth Ionization Relative-to-water

Photons: 1.000 +/- 0.005

Electrons: 1.000 +/- 0.005

Mass Density (g/cm³): 1.032 +/- 0.005

Electron Density (e-/cm³ N_A): 0.557 +/- 0.001

Electron Density Ratio

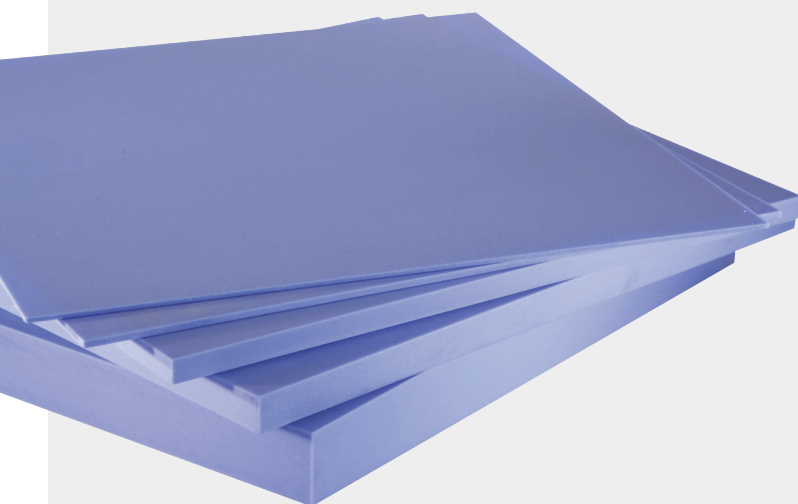
Solid Water HE / Water: 1.000 +/- 0.005

Dimensions (L/W) Thickness

20 x 20 cm 0.1 cm – 6.0 cm

30 x 30 cm 0.1 cm – 6.0 cm

40 x 40 cm 0.2 cm – 5.0 cm



TISSUE MIMICKING MATERIALS

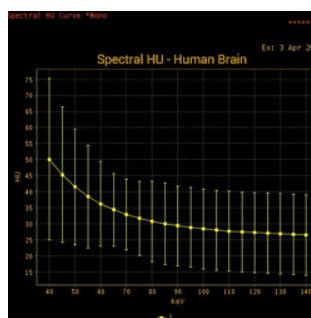
Tissue Mimicking Materials (TMM) play a key role in the dose calculations for Treatment Planning Systems and for absorbed dose estimates in radiographic images studies. Gammex has a full line of TMM for all of your clinical and research needs.

- Tissue Mimicking Materials have a variety of uses including routine quality assurance and quality control in both diagnostic and therapeutic imaging
- Gammex TMM allow simple, convenient, and accurate simulations for therapy dose determinations
- Gammex TMM provide excellent simulations for electron and photon applications between 0.01 and 100 MeV

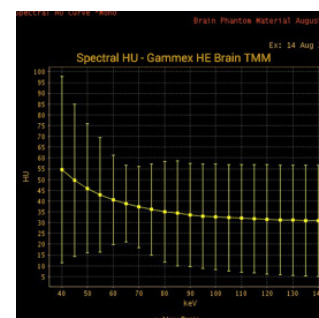
Gammex manufactures tissue mimicking materials for:

- Cortical Bone (Gammex 450)
- Muscle (Gammex 452)
- Adipose (Gammex 453)
- Breast (Gammex 454)
- Lung (Gammex 455)
- Inner Bone (Gammex 456)
- Brain (Gammex 481)
- HE Brain (Gammex 1481)
- Liver (Gammex 482)

Spectraul HU - Human Brain



Spectraul HU - Gammex HE Brain TMM



Example of HE-Brain equivalence across the energy spectrum of diagnostic imaging.

Specifications

Dimensions (L/W) Thickness

20 x 20 cm 0.2 cm – 6.0 cm¹

30 x 30 cm 0.2 cm – 6.0 cm¹

40 x 40 cm 0.2 cm – 5.0 cm¹



1 1.0 cm minimum thickness for the Gammex 455 Lung material

Solid Water® HE Transport & Storage Case

This custom wheeled case is designed to store and/or transport 30 x 30 cm Solid Water HE slabs. The case can hold either 30 cm or 20 cm slab phantom kits. Or create your own set of Solid Water HE slabs. Solid Water HE slabs are sold separately.



Specifications

Dimensions (L/W/H) (in): 31.2 x 20.3 x 15.5

Weight (lbs): Case empty - 28.4
Case with 30 cm kit and chambered slab - 93.9
Case with 20 cm kit and chambered slab - 73.4

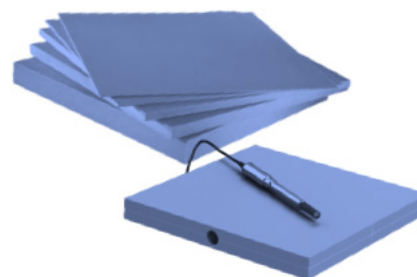
Type: Watertight hard case with telescoping handle and wheels

Case Capacity

Quantity	Thickness
1	0.1 cm
2	0.2 cm
1	0.5 cm
1	1.0 cm
4	2.0 cm
1	3.0 cm
1	4.0 cm
3	5.0 cm

Optional Solid Water HE Slab Phantom Kits

30 CM Slab Phantom Kit		20 CM Slab Phantom Kit	
Quantity	Thickness	Quantity	Thickness
1	0.1 cm	1	0.1 cm
2	0.2 cm	2	0.2 cm
1	0.5 cm	1	0.5 cm
1	1.0 cm	1	1.0 cm
3	2.0 cm	2	2.0 cm
1	3.0 cm	1	4.0 cm
1	4.0 cm	2	5.0 cm
3	5.0 cm	TOTAL	20.0 cm
TOTAL	30.0 cm		



2.0 cm chamber
slabs sold separately