Bart's Solid Water for Electrons and Photons

The Bart's Solid Water was originally developed by David White and has undergone continual improvements with new production facilities now in place at Bart's Health NHS Trust.

We are able to offer customised sizes from 1mm thick upwards with user specified thicknesses e.g. 41mm. We also offer various sizes 20 X 20, 25 x 25, 30 X 30.

The Bart's Solid Water mimics the absorption characteristics of water over a wide range of energies. Radiation beam calibration is made simpler when using Solid Water. It is designed to scatter and attenuate radiation in the same way as water and can be easily machined to accommodate custom chambers and detectors. We also precision machine cavities in slabs of 2.0cm thickness or greater to accommodate most commercially available ion chambers/ detectors.

A cut out for the PTW Roos chamber can be included with a plug to enable simple removal of the chamber obviating any damage

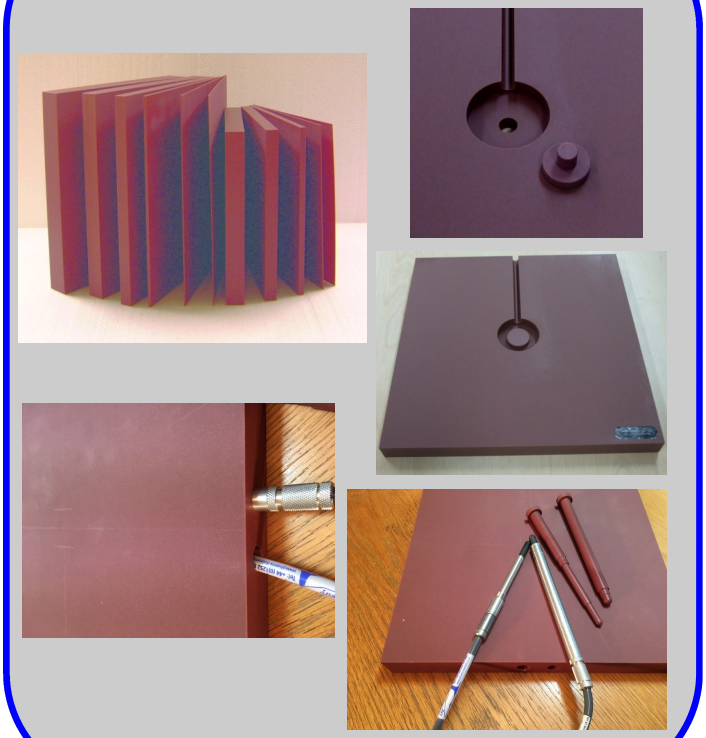
Bart's Solid Water is produced under ISO9001

Tissue Equivalent Material

Elemental composition, physical density , CT number (Hounsfield)

	Elemental composition (%)						Density (gm/cm-3)	CT number
Material	H	C	N	O	Cl	Ca		
Water Equivalent WT1	8.41	67.97	2.27	18.87	0.13	2.35	1.00	0
Water Equivalent Wte	7.39	61.99	2.01	22.18	0.11	6.32	1.04	80
							Tol 0.5%	Tol +/-10

Solid Water



Benefits & Features

- Solid Water allows for calibrations within 1% of the true water dose
- Useful in relative ionisation calibration, depth dose measurements and absolute calibrations
- Readily machined for custom sizes
- Bart's was the original Solid Water and reference information is available in many scientific publications
- Electron and Photon Stopping power relative to water of 1.030+/- 0.005 for Photon energies from 100kV to 24MV
- Wide range of sizes and dimensions
- Mouldable material for custom requests
- Rigid construction eliminates broken ion chambers
- Wide range of applications and uses
- Dedicated Solid Water (WTE) for Electrons available
- New proton Solid Water available shortly

Phoenix Dosimetry Ltd

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