



**Features**

- ▶ Scatters and attenuates x-rays the same way as water without charge storage problems
- ▶ Can be used for both photons and electrons
- ▶ Equivalent to water within 0.5%, batch tested and verified

**Specifications**

Material ..... Epoxy resins and powders to control density and radiation properties  
 Density ..... 1.04 g/cm<sup>3</sup>  
 Flatness ..... 0.2 mm (0.008 in)  
 Length & width tolerance ..... ±0.5 mm (0.02 in)  
 Thickness tolerance ..... ±0.15 mm (0.006 in)  
 Batch consistency ..... ±0.02% (measured)

Thickness	20 x 20 cm	30 x 30 cm	40 x 40 cm
0.1 cm	VW-2001	VW-3001	n/a
0.2 cm	VW-2002	VW-3002	VW-4002
0.3 cm	VW-2003	VW-3003	VW-4003
0.5 cm	VW-2005	VW-3005	VW-4005
1 cm	VW-2010	VW-3010	VW-4010
2 cm	VW-2020	VW-3020	VW-4020
3 cm	VW-2030	VW-3030	VW-4030
4 cm	VW-2040	VW-3040	VW-4040
5 cm	VW-2050	VW-3050	VW-4050
6 cm	VW-2060	VW-3060	n/a

Custom cavities are available to accommodate any therapy ion chamber in sections of any size and thickness over 2 cm. Use the above model numbers and add appropriate suffix. The table below lists the most popular chambers.

Chamber model	Suffix	Chamber model	Suffix
0.6 cc Farmer	-501	A1SL	-531
0.2 cc Farmer	-517	A14SL, T14SL	-528
FC23C	-542	A16	-540
PR-06C	-507	N23343, N34035	-549 **
A12	-513	A10	-549 **
N31003, N31013	-511B	PPC05	-549 **
N31002, N31010	-511C	N34001	-504
N31005, N31011	-511C	PPC40	-530
N31006, N31014	-518	P11, A11	-512*
N31009, N31015	-550	N23342	-519
CC01	-533	PS-033	-508
CC13	-532	NACP	-599

\* Specify chamber serial #  
 Positives (plugs) are available at extra cost for all types.  
 \*\* This section is only 1.4 cm thick, chamber inserts from the bottom.  
 For an additional fee, scribing is available for cylindrical chamber pieces.  
 The scribing consists of a 10 x 10 cm field with crosshair markings to identify the chamber reference point.

**Virtual Water™  
Phantom Materials**

Virtual Water™ makes routine checks of your linear accelerator easier. Designed for photon and electron beam calibrations, it eliminates the inconvenience of transporting, setting up and filling water tanks. Virtual Water™ is free of voids and other imperfections and is not affected by humidity or temperature changes. Skillfully molded and accurately machined in standard dimensions, Virtual Water™ can help you achieve calibrations within 0.5% of the true dose.

Virtual Water™ scatters and attenuates diagnostic and radiotherapy range x-rays the same way as water without the charge storage problems. It can be used for both photon and electron beam calibrations, including relative ionization, depth dose measurements and absolute calibrations without the need for correction and scaling factors. Ionization readings obtained in Virtual Water™ are practically the same as those in liquid water for the same depth and exposure duration.

Each batch of Virtual Water™ is tested at an independent calibration lab and verified to be within 0.5% of water at photon energies. Although 30 x 30 cm slabs are most widely used and therefore considered to be a standard size, Virtual Water™ is also available in various thicknesses in 20 x 20 cm and 40 x 40 cm sizes.

Virtual Water™ is a trademark of Med-Cal, Inc.

