



P4701 RISØ ALUMINUM WEDGE

Technical and Usage Information

Description:

This aluminum wedge was manufactured to the specifications of the High Dose Reference Laboratory at Denmark's Risø National Laboratory. It should be used to measure energies between approximately 2 MeV and 20 MeV. Each wedge is tested and certified by Risø in a 10 MeV electron accelerator.

Usage:

The aluminum wedge may be used in either a horizontal or vertical orientation. The wedge must always be perpendicular to the electron beam. The wedge should be mounted in a consistent fashion and irradiated under standard process conditions to maintain continuity of results.

Gently pry open the two halves of the wedge. Do not twist the pieces apart as this could break the alignment pins on the wedge. The wedge opens easiest when it is at room temperature. If it is hot from the irradiator, cool it for a few minutes.

The GEX B3110 Energy Wedge Card Array was custom-designed to operate with the aluminum wedge. Please see the B3110 product insert and any supplemental procedures for instruction on how to use this product with the wedge.

Maintenance:

Wipe the wedge clean occasionally with a soft cloth moistened with water, then to wipe with a dry cloth.

References:

ISO/ASTM 51649 Standard for Dosimetry in an Electron Beam Facility for Radiation Processing at Energies Between 300 keV and 25MeV.

Cautions:

The wedge is heavy and has sharp edges, and should be handled with care to avoid dropping. The pins can bend, break or dislodge if the wedge is dropped.

Follow standard practice for heat-treatment of radiochromic film prior to measurement or follow a standard time interval waiting period before measurement of dosimeters.

Plotting absorbencies or response values instead of calculated dose values will lead to errors in the energy calculations. The Depth Dose method for determining electron beam energy requires the use of dose to achieve the proper energy value. For more information see the Reference above or contact GEX Corporation.

