X-ray Windows

Guidelines for Cleaning AP3 and DuraBeryllium[®] X-ray Windows Technical Note

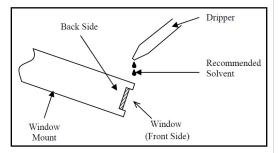


Figure 1 X-ray Window Cleaning Technique

Moxtek[®] X-ray Windows are very thin and fragile, great care should be taken while handling these windows. The guidelines below must be strictly followed in order to prevent damage to the window.

Do NOT touch the window surface with anything, including a cotton swab or soft brush. Physical abrasion can easily damage the membrane or the silicon support grid.

It is important to protect the window from dust and other particulate contamination, which can induce window failure.

Avoid any physical shock to the window. Sudden impact can damage the window.

Cleaning

Only clean the window if absolutely necessary. Cleaning can cause damage or destroy a window. Pressurized spray-can dusters should not be used near the window. Use of Evactron Plasma Cleaners under the proper conditions has been shown to not cause damage to the window.

Do NOT use any cleaning agent that may attack the aluminum overcoat or an epoxy seal (e.g., acids, bases, detergents, or water) for AP3 windows.

Moxtek recommends using high purity methanol or isopropyl alcohol as cleaning solvents. Particulates and other contaminants can damage the window membrane or leave behind unacceptable residues during the cleaning process.

To clean a window, the window mount should be oriented so the recommended solvent can run downward across the FRONT surface of the window and drip off without accumulating on the window (See Figure 1). Apply a gentle stream of solvent to the metal flange above the window, as shown in Figure 1, and allow it to flow across the surface of the window until the window is clean. NEVER squirt or spray the solvent directly onto the window surface. NEVER allow any solvent to get onto the backside of the window. Allow the window to dry in air or in an N_2 chamber.

Note: Please visit www.moxtek.com for any further questions on the proper handling of x-ray windows or call Moxtek at (801) 225-0930.

