Results of hydrostatic testing on circular windows composed of 0.015 inch (15 mil) thick Kevlar fabric sandwiched between 0.005 (5 mil) and 0.0005 inch (0.5 mil) thick Mylar. The D column denotes window diameter. The O/R column denotes whether a biting aluminum O-ring was installed. DND means "did not delaminate".

Window Orientation	D	O/R	Window History	Deflection Under load	Failure Pressure	Test Result
5 mil mylar facing hydro pressure	10"	No	Newly cut		210 psi	Ripped out at at bolt holes. DND
0.5 mil mylar facing hydro pressure	10"	No	"		260 psi	Material gave enough around bolt holes to start a leak. DND
5 mil mylar facing hydro pressure	10"	No	"		250 psi	6 bolt holes ripped out. Window sat under 210 psi for 10 min. DND
0.5 mil mylar facing hydro pressure	10"	Yes	"		100 psi	Window delaminated. Water entered between layers.
5 mil mylar facing hydro pressure	10"	Yes	"		200 psi	Eight bolt holes ripped out. DND
5 mil mylar facing hydro pressure	40"	Yes	"		36 psi	Ripped at clamping flange ring and across some of the material. At 30 psi, could hear the biting O-ring ripping into the material. 4 bolt holes were loose. DND
5 mil mylar facing hydro pressure	40"	Yes	Was on HMS for 3 weeks holding 10^{-4} Torr.	4" at 40 psi	44 psi	Ripped at clamping flange ring. DND
5 mil mylar facing hydro pressure	40"	No	Was on HMS for 3 weeks holding 10 mTorr		52 psi	Window ripped at the clamping flange ring. DND
5 mil mylar facing hydro pressure	40"	No	Newly cut, flange ring more rounded	2.5" at 20 psi	55 psi	Ripped at clamping flange ring and 5 bolt holes. DND