

## **IVS\* Sapphire Windows** (\*Interferometrically Verified Sapphire)

### **Optical**

Performance: A plane wave shall be distorted no more than ¼ wave in a single pass, verified by HeNe Interferogram\*\*.

Parallelism: Less than one second of arc, verified in Internal Frizeau Fringe Interferogram\*\*

Orientation: Each IVS Sapphire Window is individually x-ray oriented and corrected to within +/- 30 minutes of axis. Actual orientation of each finished window can be supplied to +/- 3 minutes or arc.

Axial/Planar Orientation: Available in Zero Degree (optical axis of the sapphire perpendicular to the window face), or 90 Degree (optical axis in the plane of the window).

\*\* All interferograms are made at 632.8 nm with our Zygo Mark II with 6" aperture, microcomputer data reduction and fringe analysis.

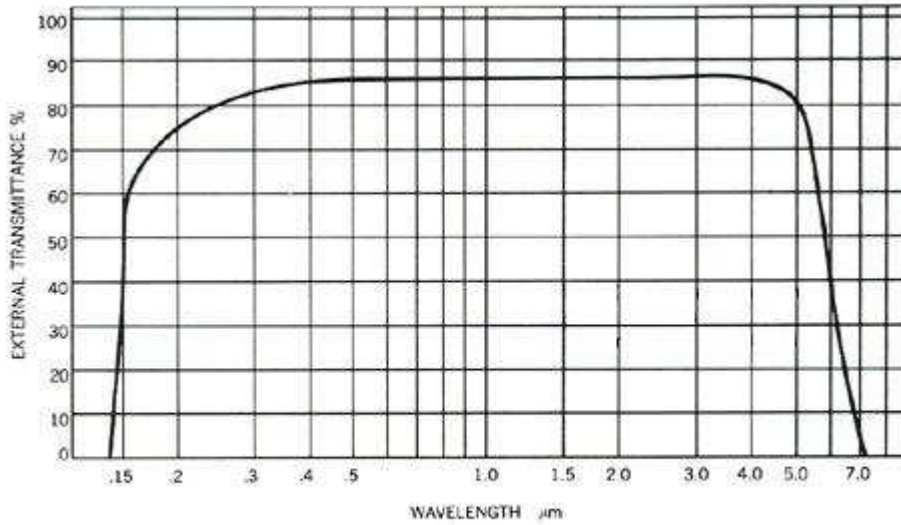
### **Material Characteristics**

Material	Surface Quality	Clear Aperture	Parallelism	Diameter Tolerance	Thickness Tolerance
Optical grade single-crystal sapphire	10-5 Scratch and Dig	85% of overall diameter	Less than 1 second of arc	+0.000"/-0.004" (+0.0 mm/0.1 mm)	+/- 0.004" (+/- 0.1 mm)

### **IVS Part Numbers**

Orientation	Thickness	0.500" diameter	0.750" diameter	1.000" diameter	1.500" diameter	2.000" diameter
90 degree	1.0 mm	IVS-0501-A	IVS-0701-A	IVS-1001-A	IVS-1501-A	IVS-2001-A
	2.0 mm	IVS-0502-A	IVS-0702-A	IVS-1002-A	IVS-1502-A	IVS-2002-A
	3.0 mm	IVS-0503-A	IVS-0703-A	IVS-1003-A	IVS-1503-A	IVS-2003-A
	5.0 mm	IVS-0505-A	IVS-0705-A	IVS-1005-A	IVS-1505-A	IVS-2005-A
	10.0 mm	IVS-0510-A	IVS-0710-A	IVS-1010-A	IVS-1510-A	IVS-2010-A
0 degree	1.0 mm	IVS-0501-C	IVS-0701-C	IVS-1001-C	IVS-1501-C	IVS-2001-C
	2.0 mm	IVS-0502-C	IVS-0702-C	IVS-1002-C	IVS-1502-C	IVS-2002-C
	3.0 mm	IVS-0503-C	IVS-0703-C	IVS-1003-C	IVS-1503-C	IVS-2003-C

	5.0 mm	IVS-0505-C	IVS-0705-C	IVS-1005-C	IVS-1505-C	IVS-2005-C
	10.0 mm	IVS-0510-C	IVS-0710-C	IVS-1010-C	IVS-1510-C	IVS-2010-C



**Transmission band of UV Grade Sapphire,  
1 mm thickness, uncorrected for Fresnel loss**

Boston Piezo-Optics Inc. reserves the right to change specifications without notice.

**Questions?** [Contact us](#) to discuss your particular application.