

6 inch Vacuum Viewport Window, uncoated

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This specification is for uncoated, laser-quality, plano-plano windows. They are to be used as viewports on UHV chambers.

Applicable Documents

LIGO- D1101548 Uncoated high quality, non-wedged, 6" Viewport, Optic

Requirements

Physical Configuration

Diameter	6.00" +/- 0.01"
Thickness	0.75" +/- 0.01"
Wedge	< 5 arc minutes
Bevel	45 deg. bevel on both edges, width approx. 0.03" or as appropriate to prevent chipping
Clear Aperture	> 5.20"
Markings	Part and serial number, as defined below, shall be marked on the barrel

Substrate Material

Fused silica, Corning 7980 or equivalent, grade 1B or better

Part and Serial Number

The Part/Serial number shall be per D1101548 and of the format:
D1101548 YY Where
YY is incremental for each optic type, starting at 01

Registration Mark

Registration mark shall be etched, ground or sandblasted



SPECIFICATION

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Surface Quality: Surfaces 1 and 2, within the clear aperture

Laser grade polish: 10-5 scratch-dig surface quality

Transmitted wavefront error, within the clear aperture

$\lambda/10$ or less, at 633 nm

Testing and Documentation

Specification	Test Method	Frequency of Inspection	Data Delivered
Physical Dimensions	Visual Inspection	100%	Certification
Surface Quality	Visual Inspection	100%	Certification
Transmitted Wavefront Error	Interferometry	100%	Certification