



SPECIFICATION

MIRROR BLANK MATERIAL, AdLIGO R3

APPROVALS	DATE	REV	DCN NO.	BY	CHECK	DCC	DATE
AUTHOR: V. Parames	01/23/08	A	E080042-A				
CHECKED: G Billingsley	04/04/08	A					
APPROVED:							
DCC RELEASE							

This document specifies the material to be used for PR3 and SR3.

Applicable Documents

LIGO-D080053-A AdLIGO R3 Blank

MIL-G-174-B Glass, Optical

Requirements

Physical Dimensions	per LIGO- D080053-A AdLIGO R3 Blank
Clear Aperture	Central 200 mm
Serial Number	Blanks shall be serialized as R3XX, where XX increments starting at 01
Material	Fused silica
Final shaping	Shaping shall be performed using a progression of grit size ending with a 320 or smaller grit tool.
Defect depth	Maximum on any surface or corner is less than 0.5 mm
Birefringence	< 5 nm/cm
Bubble and Inclusion Cross section	No bubbles or inclusions within 5mm of the flat surface within the clear aperture



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Specification	Method	Frequency of Inspection	Data Delivered
Physical Dimensions	Visual Inspection	100%	Diameter Thickness
Serial number	Visual Inspection	100%	Inspection Report included with Certification
Material	Process Control Material Certification	100%	Inspection Report included with Certification
Defect depth	Visual Inspection	100%	Hand sketch indicating location and dimensions
Birefringence	Process Control Material Certification	100%	Inspection Report included with Certification
Inclusions	Visual Inspection	100%	Hand sketch indicating location and dimensions

Table 1: MEASUREMENT MATRIX: FREQUENCY AND METHOD