

**Contamination Control Optics:****1" High Reflectors @ 1064nm**

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1 Description

1" Ø Flat/Flat high reflector coated on one side for 0 ° use @ 1064nm

2 Material

Corning 7980 Mirror Grade fused silica or equivalent
Grade 0F or better (Low inclusion class: 0.3 mm^2 cross section, 0.1 mm max. size, Homogeneity <math>< 5 \text{ ppm}</math>)

3 Mechanical Properties Per LIGO-D1301036

1"Ø ± 0.01 x 0.25" ± .01" Plano / Plano
CA = central 80%
Bevels on S1 and S2

4 Markings

Each optic should have a unique serial number
An arrow on the barrel points to the HR surface.
The arrow and serial number shall be scribed or etched on the barrel of the optic for in-vacuum use. **No pencil marks shall be present on the optic.**

5 Surface Roughness**Side 1**

Surface Roughness: ≤ 5Å RMS in CA

Surface Quality: 10-5

Side 2

Surface Roughness: <math>< 10 \text{ Å}</math> RMS in CA

Surface Quality: 40-20

Optic Barrel and Bevels

Polished, with no grey evident when inspected in normal room lighting.

**Contamination Control Optics:****1" High Reflectors @ 1064nm****6 Surface Figure****Side 1**Flat < $\lambda/4$ at 632.8 in CA**Side 2**Flat < $\lambda/4$ at 632.8 in CA**7 Coating**Wavelength: **1064nm**Angle of incidence: $0^\circ \pm 5^\circ$ **Side 1**R \geq 99% @ 1064nmAbsorption @ 1064 nm \leq 1ppm**Side 2**

No coating