

LIGO lifornia institute of technology

E980135-00 ·D

DRWG NO. REV. GID

SHEET 1 OF<sub>2</sub>

# **COMPONENT SPECIFICATION**

#### TITLE **2 km TELESCOPE MIRROR SUBSTRATE #2, COATED**

APPROVALS:	DATE	REV	DCN NO	BY	СНК	DCC	DATE
DRAWN: David Reitze	06-23-98						
CHECKED:							
APPROVED:							
DCC RELEASE:							

# **Applicable Documents**

LIGO-D970588-00-D LIGO-E970145-00-D

2 km Telescope Mirror #2 Substrate Substrate, 2 km Telescope Mirror #2

# **Requirements**

## **Physical Configuration**

Fabricate from		
LIGO-D970588-00-D		

2 km Telescope Mirror #2 Substrate

# Surface 1 and 2

Coating to be centered at 1064 nm Angle of Incidence to be 0 degrees

Coating Uniformity:

1nm rms - central 3 cm 15 nm p-v - over 6.8 cm <15 ppm <1 ppm

Absorption:

Scatter:

Zero surface electrical field

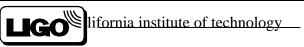
## **Surface Quality**

To comply with LIGO Component Specification E960093-A-D (Page 2): "Scratches and Point Defects" Coating to resist abrasion test per MIL-M-13508C

# Surface 1: HR Coating

Transmission:

<20 ppm



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SHEET 2 OF<sub>2</sub>

CONTINUATION SHEET

#### TITLE **2 km TELESCOPE MIRROR SUBSTRATE #2, COATED**

# Surface 2: AR Coating

Reflection:

< 300 ppm

# NOTE:

Coating manufacturer to provide:

- 1. One (1 in.) witness plate from each coating run
- 2. Spectrophotometer graphs of Reflectance and Transmittance of HR coating