LASER INTERFEROMETER GRAVITATIONAL WAVE OBSERVATORY

LIGO

COMPONENT SPECIFICATION

E080089 -00- D

Drawing No   Rev. Group

Sheet 1   of   2

ETM QUAD_End Reaction Mass (ERM) component specification

1   Applicable Documents

This document supports the drawing:
>   D080116_ALIGO_SUS_ETM QUAD_End Reaction Mass (ERM)

2   Requirements

Material
>   Fused Silica:
>   - Heraeus Suprasil (any grade, including commercial grades)
>   - Schott Lithosil QT
>   - Equivalent fused silica - subject to approval of LIGO scientists
>
>   NOTE: Material to be supplied with a certificate of conformity

Physical configuration
>   Shape and polish according to:
>   >   D080116_ALIGO_SUS_ETM QUAD_End Reaction Mass (ERM)

Reference Markings:
>   Registration Marks shall be etched, ground or sandblasted, and located per LIGO-D080116.

Serial Number:
>   The Serial number shall be etched, ground or sandblasted, and located per LIGO-D080116.

3   Inspection

Specification	Test Method	Data delivered
Outside diameter	Physical inspection	Measurement at six locations, plus mean measurement
Thickness	Physical inspection	Measurement at six locations, plus mean measurement
Wire groove separation	Physical inspection	Measured dimension
Face to wire groove check	Physical inspection	
Surface S3 to wire groove 1	"	Measured dimension
Surface S4 to wire groove 2	"	Measured dimension
Edges and chamfers	Visual inspection	Inspection report included with certification
Scratches and point defects	Visual inspection	Hand sketch including scratch/dig dimensions
Serial Number	Visual inspection	Inspection report included with certification

Table 1: Inspection requirements list

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Data

To be taken as instructed in Table 1.

Instrumentation used for any given measurement should be listed alongside that measurement.

Orientation

For the purpose of all data collection, data should be taken where possible from side 1 (surface S1). If this is not possible there shall be a special note beside the data indicating from what direction/how it was taken.

Format

All data shall be delivered according to Table 1.