



Compensation Plate Barrel gold coating specification

Author	DATE	REV	DCN NO.	Checked	DATE
GariLynn Billingsley	9-2-15	V3	E1500374-v1	Torrie	9-2-15

A gold coating is to be deposited onto the barrel of the Compensation Plate, with some areas masked off to create the pattern specified below. The Compensation Plate (CP) is a cylindrical fused silica substrate, 340 mm diameter x 100 mm thick; see LIGO-D1000979-v2 for the detailed drawing of the CP.

Applicable Documents

LIGO-D1000979-v2 COC TCP Substrate

OR

LIGO D1000979-v3 COC TCP Substrate

LIGO-D0900981-v3 Thin Compensation Plate Barrel Coating Pattern

Coating Specifications:

Side S3 of D1000979 is to be coated. Coating is to cover the full barrel (S3) of the optic (except on masked areas), extending up to the chamfer (no coating on the chamfer).

Underlayer: 500 Angstroms (nominal) of Inconel, Chromium or other suitable material to provide adhesion.

Gold coating: 1000 Angstroms (nominal) gold.

Uniformity: Coating thickness should be uniform to approximately 25%.

Durability: The coating must be able to withstand soldering, using an Indium-Silver solder, at a temperature 195° C.