

From: Billingsley, GariLynn GariLynn.Billingsley@caltech.edu
Subject: Re: Disk inserts etc
Date: September 26, 2022 at 7:04 AM
To: Angus Bell Angus.Bell@glasgow.ac.uk
Cc: Mark Barton Mark.Barton@glasgow.ac.uk



Great catch Angus, thanks!

On Sep 26, 2022, at 4:26 AM, Angus Bell <Angus.Bell@glasgow.ac.uk> wrote:

Gari,

I've sent a couple of D080684 disks to you at Caltech. The DHL tracking number is 3770989375. The redline for that part looks good. Now that you have tidied it up, the thing that sticks out is that we don't define lambda, but call out $\lambda/10$. So, to be right on the button maybe we should add a note: 5. $\lambda = 633 \text{ nm}$?

Angus

From: Billingsley, GariLynn <GariLynn.Billingsley@caltech.edu>
Date: Friday, 23 September 2022 at 15:21
To: Angus Bell <Angus.Bell@glasgow.ac.uk>
Subject: Re: Disk inserts etc

Hi Angus,

I've had a more detailed chat with Calum about this. Apparently our need is not white-hot at the moment, just orange(!)
Given the industry-wide slowdown in the polishing business, I would amend my earlier request and just ask for 2? We will happily replace these as soon as we get more.

I was looking at the insert drawing, I see in the notes that the material is Corning 7980.

While there is some information in the drawing about the quality of S2, there is no detail about the quality of S1, only figure. I assume the surface quality requirements were in the RFQ (mentioned under "material")

I have the following from the Test Mass Polishing E080512:

Mounting Flat Figure, measured over the Bond Area per D080658, 2 places
Flatness: Peak to valley maximum deviation over the bond area, with tilt subtracted: < 60 nm
In the frequency band < 0.5 mm⁻¹: σ_{rms} < 20 nm

Is that over-constrained for the Disk Insert, or just right?
Anything else from the RFQ that might be missing?

Would it be OK with you if I modified the .pdf of the drawing to incorporate the material and S1 info?

Thanks so much for all of your help!!!

Gari

On Sep 22, 2022, at 8:41 AM, Angus Bell <Angus.Bell@glasgow.ac.uk> wrote:

Gari,

The Disk Inserts are D080684 and the other test suspension parts are referenced in D080687.

We purchased the last batch from Gooch and Housego here in the UK, I have 6 off D080684 on my desk that I am sure can be sent to you, if you need some right now. I would have thought that any optics company could make these to the spec. If there are parts you need info on that aren't covered here, just let me know.

Angus