

pfRICH Engineering/Design Update

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Mirror Updates/Discussion

- Compiling the reflective data; should be ready today
- Ideas on how to improve the coating process
- Sushrut was able to look at the mirror and give a min radius for the inner flange and some keep out zones for bolt holes (1" from each side)
- Discussed using blind tapped holes on the sensor plane to avoid sealing issues
- Pins and bolt holes should have CNC-level locational accuracy
- Surface quality was the issue not a chemical bonding issue with the resin

Mirror Updates/Discussion

Discussion about alternative options if gelcoat quality cannot be fully improved

- Discussion about whether we can include Lexan in the mold layup
- ESR film discussed
- These are considered **backup** options, not a primary option.

Mandrel Discussion

- Want to have a copy of the CAD design for the mandrel, it is complete, just want it to be sent out
- Order for 8020 should be after Christmas
- 8020 can be short lead time if ordered through McMaster but not if you go directly through 8020
- Foam Boards/CF sheets/Honeycomb are long lead... **must** be ordered before Christmas
- Magnet strips and shaft were briefly discussed

Meeting Between Bill/Dan/Myself

Proposed to use a plastic liner on the inside similar to the TPC

1. Tedlar/Mylar/Plastic Film
2. CF
3. End Ring
4. Honeycomb
5. CF

Possibility to use two layers of CF... ongoing discussion with Tom

Meeting Between Sushrut/Alexander/Myself

Sushrut, Alexander and I had a meeting about the priority of construction for Purdue.

1. End Ring analysis/finalization/production
2. Provide a "best" sample to SBU by EOM Jan for mirror substrate coating
3. Concurrently work towards sensor plate final design

Questions?