

**Subject:** Re: Arm Cavity Baffle - restricted materials

**From:** Dennis Coyne <coyne@ligo.caltech.edu>

**Date:** Tue, 14 Jun 2011 08:40:15 -0700

**To:** "Lisa C. Austin" <laustin@ligo.caltech.edu>

**CC:** Dennis Coyne <coyne\_d@ligo.caltech.edu>, Mike Smith <smith\_m@ligo.caltech.edu>, Calum Torrie <ctorrie@ligo.caltech.edu>

Thanks for letting me know the sizes, materials and applications. I was aware off all of these applications and approve their use for the ACB.

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On 6/11/2011 12:24 AM, Lisa C. Austin wrote:

Dennis,

The Arm Cavity Baffles have components that are on the restricted materials list. I have calculated all know volumes based on maximum configuration of the Arm Cavity Baffle - worse case.

**D1003111 - SLC PHOTODETECTOR CABLE LOWER ASSY** (x2)

1. TICOR # TS0125-3: DB25 MALE CONNECTOR (J1) FOR UHV (**PEEK**) and **ELECTRO-LESS NICKEL Plating** - Volume = unknown
2. COONER WIRE # CZ1104 29GA PFA INSULATED BIOMEDICAL WIRE: 4 COND. CABLE 29GA PFA INSULATED (WITH **PEEK** OVERBRAID) 5 NO SHIELD. - Volume = unknown
3. PART # 6759: **PEEK** BRAID - PART #6759 MANUFACTURED WITH ZEUS 0.016" BLACK **PEEK** DRAWN MONOFILAMENT - Volume = unknown
4. D1003014: PD BACK PEEK; **PEEK** - Volume = 1.539 cubic inches
5. D1003028: PD PCB SUPPORT; **Kapton, polyimide** - Volume = 0.424 cubic inches
6. D1003239: ARM CAVITY BAFFLE ALS PD PCB; **Kapton** - Volume = 0.424 cubic inches

**D1003117 - SLC PHOTODETECTOR CABLE UPPER ASSY** (x2)

1. CUSTOM DB25 FEMALE: DB25 FEMALE CONNECTOR (J1) FOR UHV (**PEEK**) - Volume = unknown
2. CZ1105 (28 AWG) OR CZ1104 (29 AWG: 25 COND. (12 TW PAIR + 1 WIRE + SHIELD) CABLE WITH COPPER BRAID (SHIELD) AND **PEEK** OVERBRAID - Volume = unknown
3. CUSTOM DB25 FEMALE: DB25 FEMALE CONNECTOR (J2) FOR UHV (METALIZED **PEEK**) - Volume = unknown

**D1003013 - ARM CAVITY BAFFLE PD ASSY (x8)**

1. D1003024: PD FRONT PEEK INSULATOR; **PEEK - Volume = 1.68 cubic inches**
2. D1001346 - aLIGO, ASSY, CABLE BRACKET, HAM TABLE; **PEEK - Volume = 0.229 cubic inches**

Total known Peek Volume = 4.296 cubic inches

Lisa

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