

Neutral Filters & WLS: status report of the FD2 preproduction

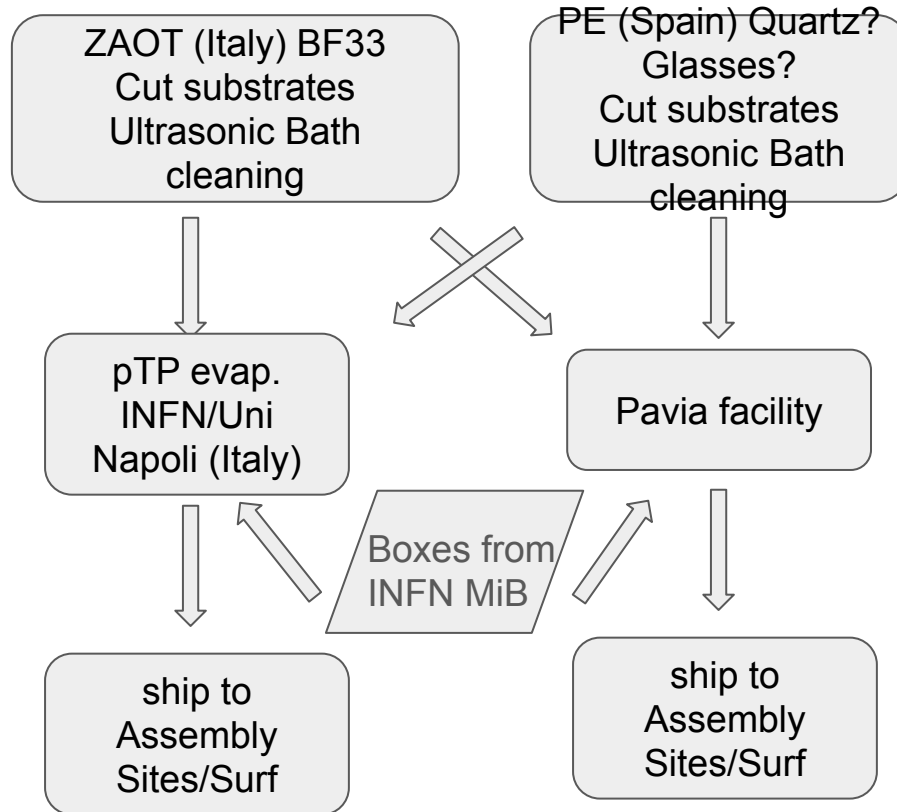
PhCollector WG Meeting
C.M. Cattadori
22 October 2024

Status of preproduction at ZAOT



545 units of x BF33 substrates for FD2 proeproduction Ready to be shipped at the coating faicilities (Campinas, Napoli, Pavia)

Substrates (NF) /DF Production

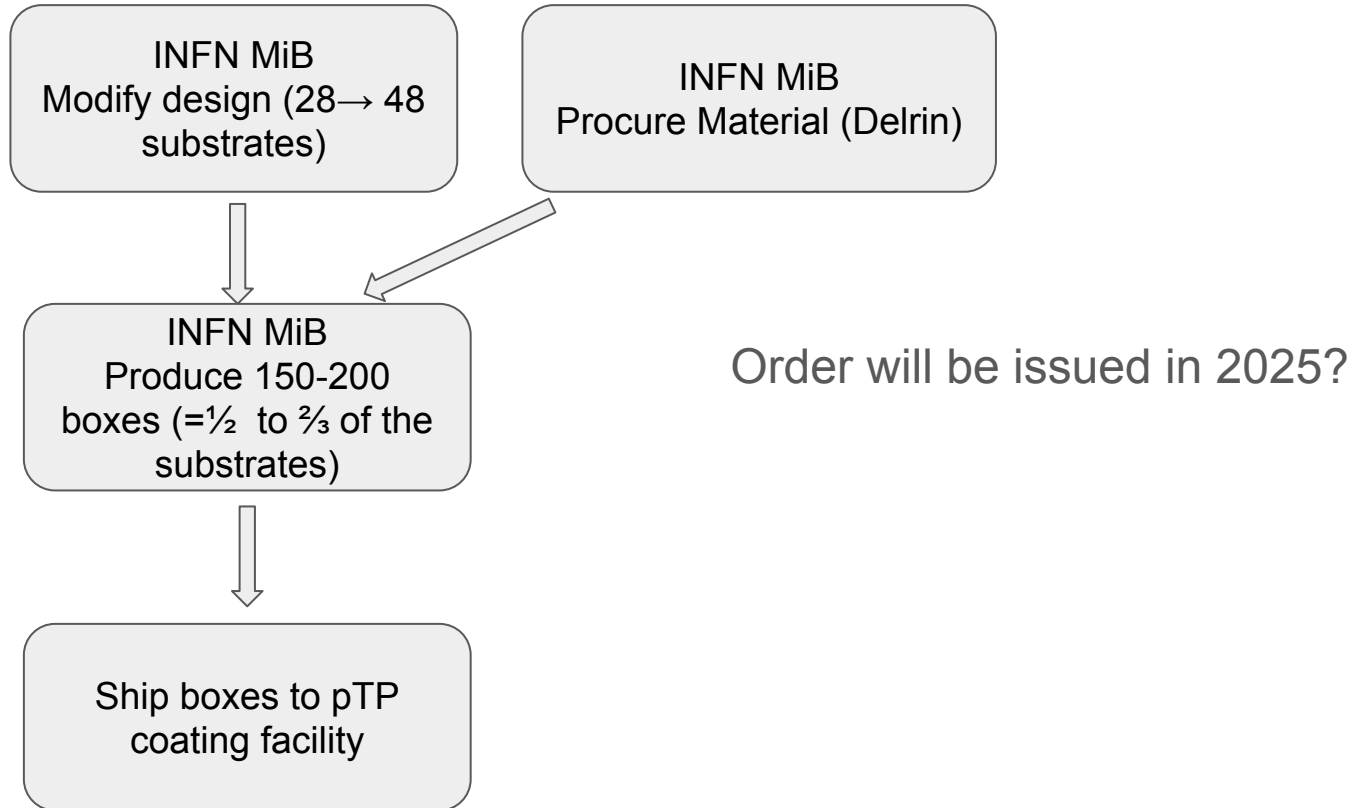


Quartz OK for pTP stability?
Alternatively Which glass type?

When the Italy-based facilities will be operative?

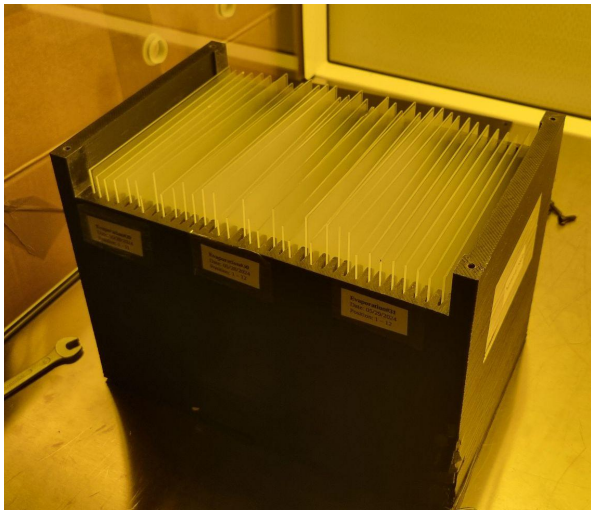
Assembly sites/SURF?

Auxiliary workflows: Glass Substrates Transport Boxes

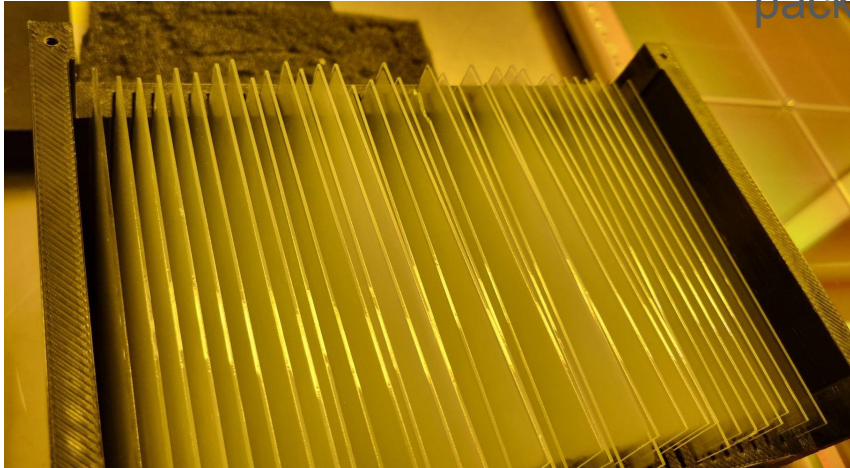


Readiness of glass substrates auxiliary HW & procedures

1. Substrates cleaning a@ ZAOT validated by CBs & M0 & M1 batches
2. Substrates cleaning @ PE: Status?
3. Substrates Shipment:
 - a. ZAOT: 24 units in onion paper
 - b. PE: ??
4. Transport Boxes at MiB
 - ✓ pdesign and production validated in the framework of the DF/NF substrates shipment in 2023 and 2024
 - ✓ The design has been distributed and shared with: Campinas, Valencia, Madrid (?)
 - ✓ cleaning validated
 - ✓ lining with soft material validated
 - ✓ boxes packaging for shipment in cardboard validated (cardboard type, number of boxes inside one cardboard, how to arrange the boxes, packaging material)
 - ✓ purchase of boxes material & production: not yet started
5. How to open the boxes at the Assembly Sites
6. Specs for the pTP evaporated NF/DF (? Still an issues? Maybe not)
7. Assembly
 - a. verify availability at SURF of a clean environment devoted to stock and assemble NF/DF integration into the XA-MC

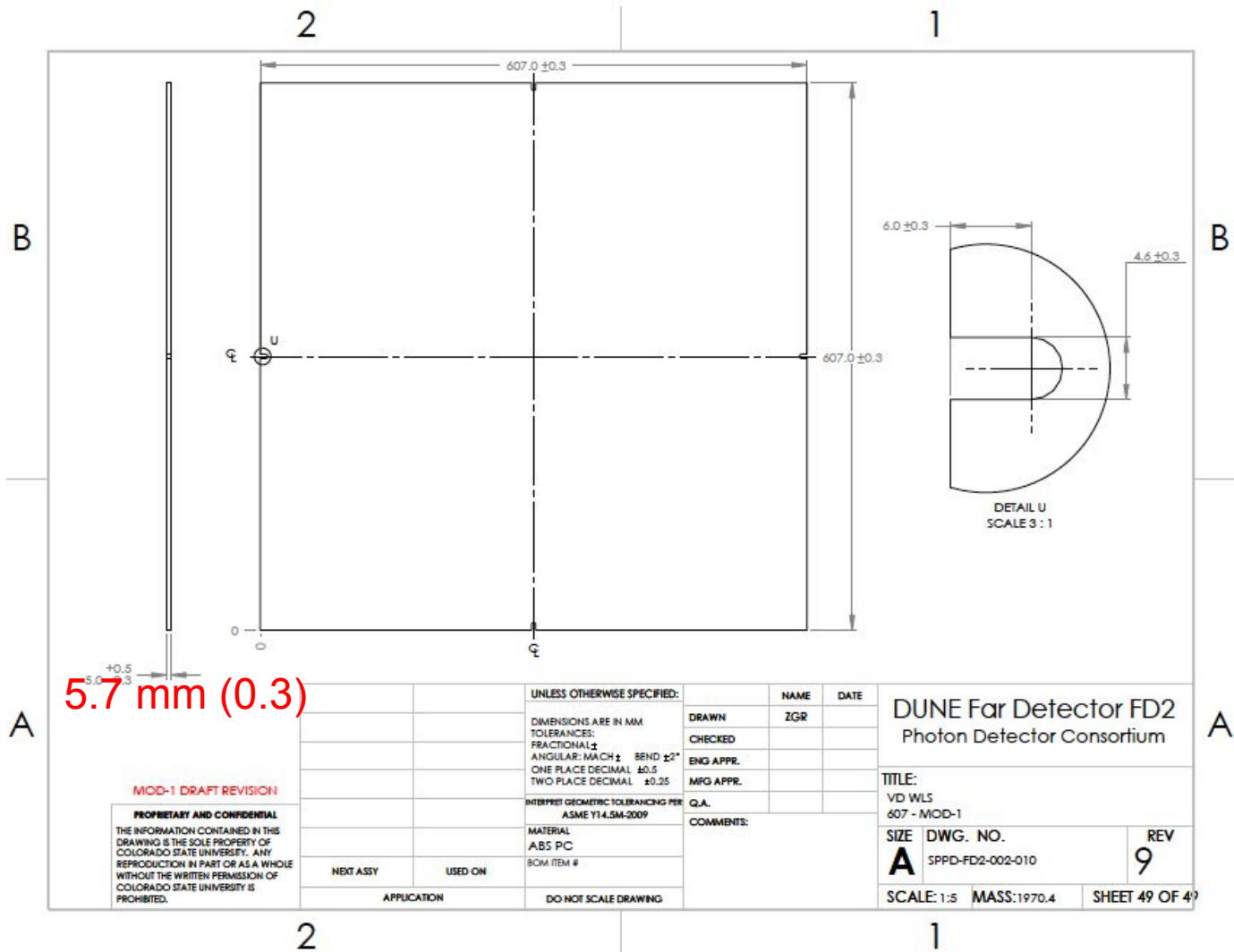


- Avoid use of improper boxes
- comb ranking structure not good
- missing soft material below above glasses
- parcel not properly packaged



WLS: Status of preproduction

- ❖ Design, thickness and tolerances have been finally defined with the green light of the mechanical team: $607 \times 607 \times 5.7 \text{ mm}^3$, tolerances 0.3 mm
- ❖ Order of 36 units has been issued
- ❖ Production will be within 2024
- ❖ Where and how to stock the preproduction t.b.d.
- ❖ Igroscopicity of PMMA is high, can absorb up to 30% in weight if kept in wet atmosphere. We should take care of this more than of dark environment
- ❖ Quality check procedures ready and delivered for the I&I meeting



5.7 mm (0.3)

MOD-1 DRAFT REVISION

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF COLORADO STATE UNIVERSITY. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF COLORADO STATE UNIVERSITY IS PROHIBITED.

UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN MM		DRAWN	ZGR
TOLERANCES:		CHECKED	
FRACTIONAL ±		ENG APPR.	
ANGULAR: MACH ± BEND ± 2°		MFG APPR.	
ONE PLACE DECIMAL ± 0.5		Q.A.	
TWO PLACE DECIMAL ± 0.25		COMMENTS:	
INTERPRET GEOMETRIC TOLERANCING PER ASME Y14.5M-2009			
MATERIAL			
ABS PC			
BOM ITEM #			
NEXT ASSY	USED ON		
APPLICATION			
DO NOT SCALE DRAWING			

DUNE Far Detector FD2
Photon Detector Consortium

TITLE:

VD WLS
607 - MOD-1

SIZE	DWG. NO.	REV
A	SPPD-FD2-002-010	9

SCALE: 1:5 MASS: 1970.4 SHEET 49 OF 49