

# Dichroics status and plans for VD-Module-0

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# XA Components

Component	Size/Number	Groups involved	Manufacturer	
Mechanics	660 x 660 16 units	CSU,IOWA,NIU (US)		
WLS Lightguides	625 x 625 max 16 units	INFN-MiB,UniMIB (Italy)	G2P (Italy) LC (Italy)	
Dichroics	150 x 150 200 x 97.5 97 x 97	CIEMAT, IFIC (Spain) INFN-MiB(Italy)	PE ZAOT	
pTP coating		UniCAMP (Br)	UniCAMP	
SiPMs	2560	CIEMAT, (Spain), INFN,UniMiB (Italy)		
Flexes	128	UCSB,FNAL,INFN-MiB		

# Dichroics

- Two Manufacturer
  - PE (Spain):
    - 150 x 150 mm → 16 per XA side
    - LAr designed
  - ZAOT (Italy):
    - 202 x 97.5 mm → 18 per XA side
    - 150 x 150 mm → 16 per XA side
    - LAr designed
- pTP coating
  - Campinas
- Glasses will travel back and forth
  - EU → Brazil (Shipped/Hand Carried)
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# pTP evaporation capabilities @ Campinas

(agreed with Ana Machado)

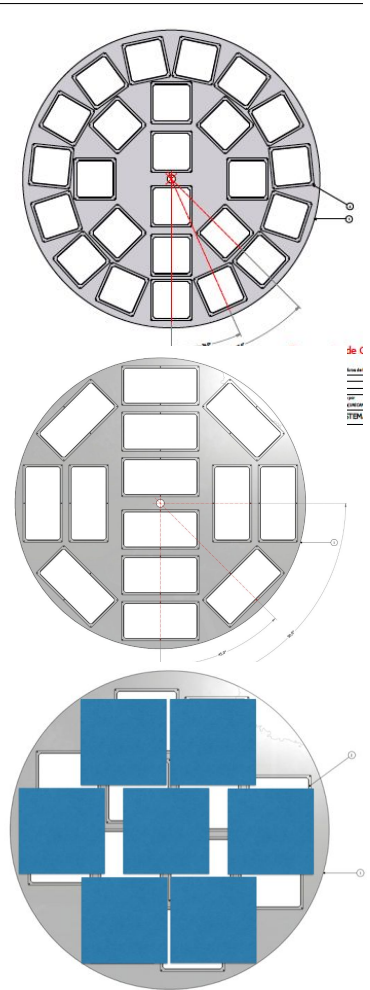
Size mm x mm	glass/batch #	n.batch/day #	glasses/week #	equivalent 2 sides XA-VD/week
97 x 97	25	2	250	3.5
202 x 97.5	14	3	210	5.8
150 x 150	7	3-4	105-140	3.2-4.4

## Coating periods:

- Nov29 to Dec19 2022
- Jan09 to Jan20 2023

## Coating thicknesses:

- 430u/cm<sup>2</sup> central ring
- 340u/cm<sup>2</sup> middle ring
- 240u/cm<sup>2</sup> external ring



# Tentative Plan Little Contingency (Carla)

	Oct 22	November 22				December 22				January 23			
	4	1	2	3	4	1	2	3	4	1	2	3	4
ZAOT:													
design	Blue			Blue	Blue								
production		144 x (200 x 100)				64 x (150 x 150)							
QC & delivery			Green					Green					
shipping					Black				Black				
pTP coating						Magenta					Magenta	Magenta	Magenta
delivery at CERN							Yellow					Yellow	Yellow
PE: 150 x150													
design			Blue	Blue									
production					64 x (150 x 150)				128				
QC & delivery						Green							
shipping							Yellow			Black			
pTP coating							Magenta				Magenta	Magenta	
delivery at CERN												Yellow	Yellow

# Tentative Plan No Contingency (Anselmo)

0. IFIC/CIEMAT order the 150x150 pTP coating disc (available end of November)
1. ZAOT produces 144 (+spares) 100x200 filters for mid/end November
2. PE produces 64 (+spares) 150x150 filters for end November or beginning of December
3. Ship/Hand carry to Campinas on November 26-28th with ZAOT filters (and if PE is on time also with PE)
4. Ship/Hand carry back to CERN with coated filters on Dec. 10th
5. Second batch of filters for both PE and ZAOT with optimised layers is ordered mid-end November.
6. PE produces 128 (+spares) 150x150 optimised filters for end of December
7. ZAOT produces 64 (+spares) 150x150 optimised filters for end of December
8. Ship/Hand carry campinas on January 7th with ZAOT and PE filters
9. Ship/hand carry to CERN with coated filters on Jan. 21st