

Status of material and assembly of EU module/strip for EU/US SuperModule

As agreed in Paris (March 9th 2009) there will be a combined EU/US SuperModule:

-9 Strip Modules done in US

-15 Strip Modules done in EU:

- 7 Strip in Nantes

- 4 Strip in Frascati

- 4 Strip in Catania

all to be delivered to Grenoble

Status of material for the 15 EU Strips for the EU/US SuperModule

LEAD:

All lead available in the 3 sites (LNF, Ct and Nantes) for assembly

FIBERS:

755 bundles ready today (720 needed for 15 strips)

Nantes has already the fibers, box for Catania in preparation.

Technicians will continue fiber production till starting the assembly.

Production rate:

- sputtering of ~1000 fibers/day

- bundles preparation: 140/week

Status of material for the 15 EU Strips for the EU/US SuperModule - 2-

SCINTILLATORS:

46.000 tiles arrived from Russia at LNF on Tuesday, April 21st and immediately given to the company for cut & paint.

Some **problems** found:

-in all packages a lot of statically charged residuals found, very difficult to remove before machining, more time needed for processing...

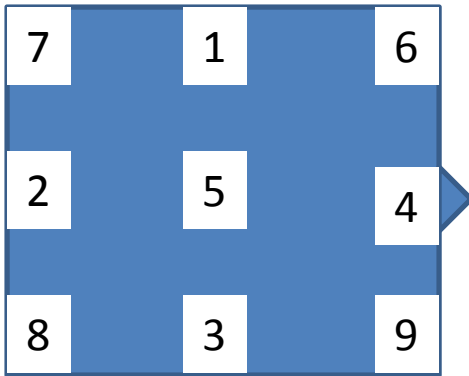
- in most of the packages, the scintillators are a bit different than usual, with concave shape and different height on the corners, more time needed for processing.....

Statically charged residuals very difficult to remove before machining



2009/04/24 10:30

f. ronchetti



Test tile 1A (thick)

- 1) 1.75
- 2) 1.74
- 3) 1.74
- 4) 1.74
- 5) 1.74
- 6) 1.80
- 7) 1.78
- 8) 1.76
- 9) 1.77

Test tile 1B (thick)

- 1) 1.74
- 2) 1.73
- 3) 1.75
- 4) 1.74
- 5) 1.74
- 6) 1.76
- 7) 1.76
- 8) 1.78
- 9) 1.80

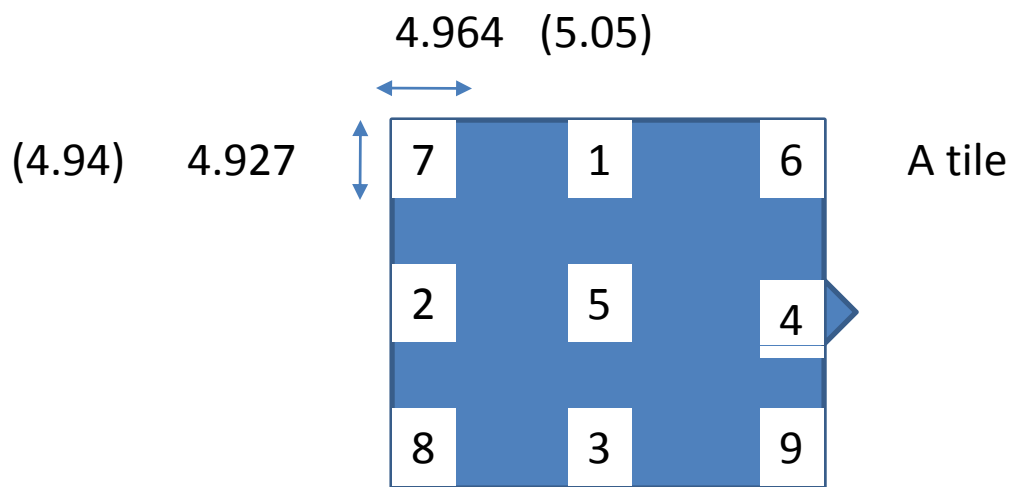
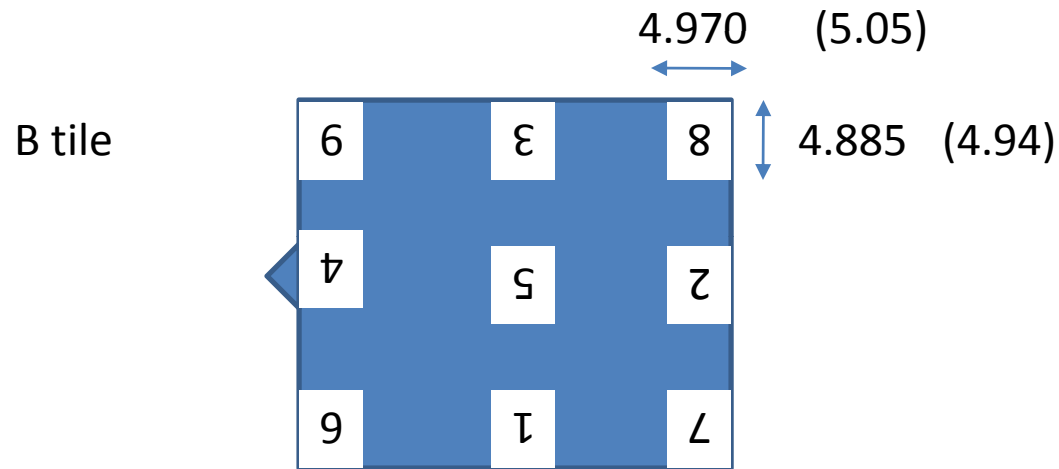
Test tile 1A (thin)

- 1) 1.69
- 2) 1.68
- 3) 1.69
- 4) 1.69
- 5) 1.69
- 6) 1.75
- 7) 1.73
- 8) 1.73
- 9) 1.74

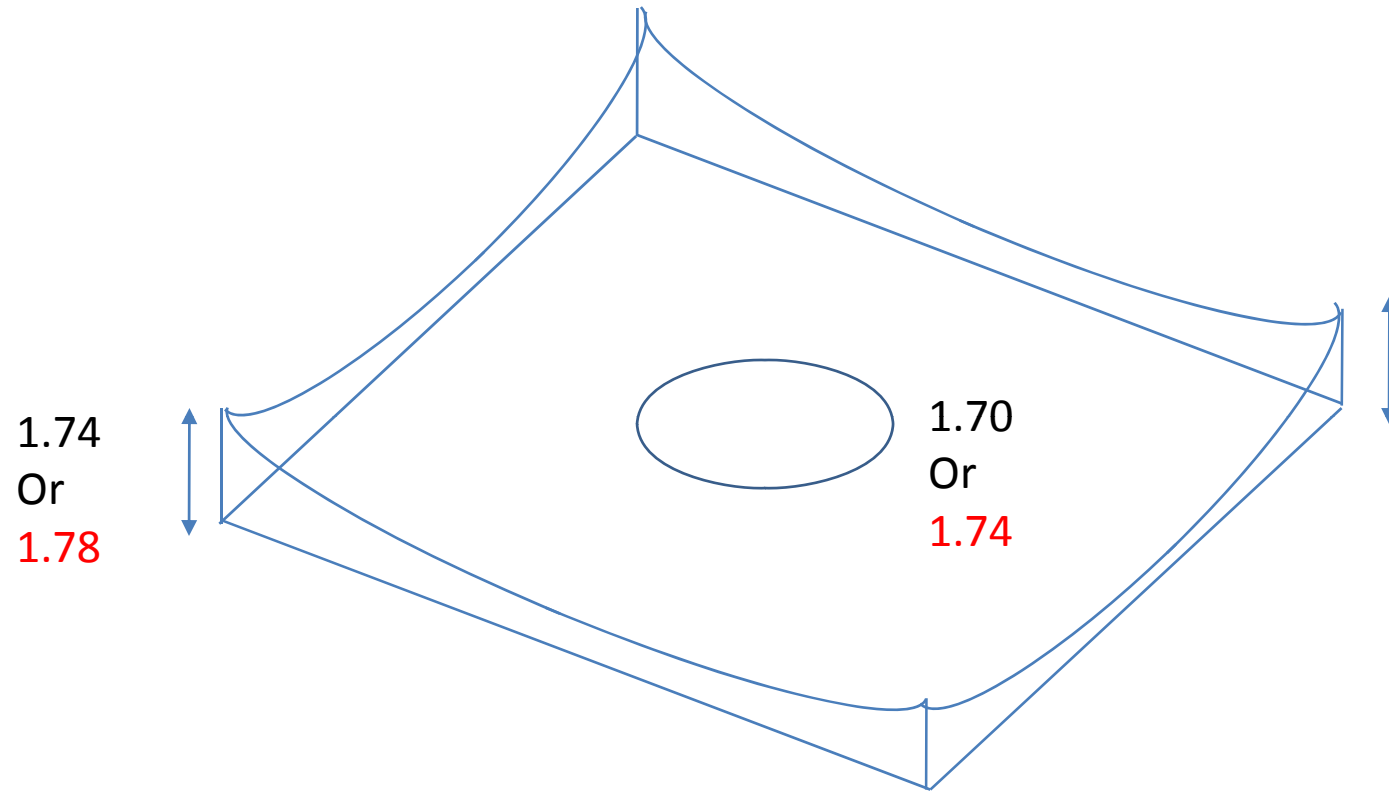
Test tile 1B (thin)

- 1) 1.69
- 2) 1.69
- 3) 1.70
- 4) 1.70
- 5) 1.69
- 6) 1.76
- 7) 1.73
- 8) 1.75
- 9) 1.75

- Interhole distance OK (within microns)
- outside dimensions OK
- hole diameter ~ 1.5 (conical shape) OK



Schematic reproduction of tile shape (average thicknesses shown)



From preliminary dimensional tests on the new scintillator samples
Seems that they come in two kinds. Thinner than nominal (black numbers) and thicker than nominal (red numbers). Both kinds have a concave shape.
Many packs also show a lot of scintillator debris statically charged is difficult to remove.



Pack into the machining frame don't get evenly in contact with the clamps

f. ronchetti

Status of material for the 15 EU Strips for the EU/US SuperModule - 3-

SCINTILLATORS (cont'd):

- 1 box A and 1 box B available at LNF, 1 module assembled without major problems and under pre-compression now (height=260.4 cm, gap=3.3 cm, NO shimming needed for scintillator)
- 4 boxes A and 4 boxes B ready for Thursday morning to be shared
- production rate at present: 5A+5B/week (=20modules/week instead of 40 modules/week as before), maybe better later (?)
- same problems for WSU?
- inform Uniplast
- how to keep the schedule?

Status of material for the 15 EU Strips for the EU/US SuperModule - 4 -

PLATES:

600 plates of each type (F, C, B) ordered in 2008 with MTR and delivered in April:

- 60 in Nantes
- 300 in LNF
- 180 in Catania
- 60 already taken (as pre-production)

Quantity enough for EU SM2 and EU SM3

Quality check done by Francesco & Armando with MTR (see Francesco's talk): quality looks good!

Status of material for the 15 EU Strips for the EU/US SuperModule - 5 -

Other material:

Paper, black paper, belleville washers, flat washers for belleville, belleville pushers, plunger pins, M6 integrated plunger pins, straps, strongback, studs, manifold, Tcard brackets, Tcards, molex cables, snap rings, copper springs, APDs, LED fibers, central covers and side covers

OK for the 15 strips of the EU/US SuperModule

-Nantes has all the material (except LED fibers and scintillators)

- LNF needs material from Nantes (in preparation)

- Catania needs material from Nantes (in preparation) and from LNF (in preparation)

Material will be available for assembly

Status of assembly for the 15 EU Strips for the EU/US SuperModule

Nantes:

- 2 strips already assembled and delivered to Grenoble. APDs missing, will be inserted by JF
- 4 modules available from prototype
- from May II assembly station available (steel plate for basement, columns, bridge, centrl plate and holding cell plates from Catania + all tool plates, columns and sleds from Frascati)
- production rate: 2 modules/day (= 10 modules/week)

LNF:

- 1 module from prototype
- 1 module assembled with new scintillators
- 1 module from prototype can be done as soon as straps available
- production rate: 2 modules/day (= 10 modules/week)

Catania:

- 2 modules available
- production rate: 2 modules/day (= 10 modules/week)