

Polymer Laboratory Weekly Meeting Summary – 18.07.2024

➤ **General information:**

- The two Prusa 3D printers arrived and are being assembled, we are waiting for a last package from Prusa to arrive.
- PROTODUNE Tube: the tube is still leaking. Tests are ongoing to find exactly where is the leak. Discussion starts to purchase another GFR tube.
- Reception of a new plasma device for the “desizing” study.
- Reception of the last roll of yarn of quartzel.

➤ **Operation & Services:**

- Reception of HV supplies where we’re asked to put Stycast 2850FT for heat conduction.
- Impregnation of SMC 108 with POLAB Mix done, no problem.
- Casting a clear resin on slice of link cable.
- Bounding of multiple components with Stycast 2850FT.
- Casting of a box in Araldite F for SY-RF.
- Silicone caps for the treatment surface.
- Casting of silicone patch for the LMF section.
- Quality control of a batch of CTD-101K for LMF section.
- 3D Printing:
 - Serie a grid and cross in Accura 25 (x200) for EP and Geneva University.
 - Demand for manufacturing mold to cast Stycast 2850FT or Eccobond 286.
- Reception of the first septa coil of the series, to impregnated with POLAB Mix.

➤ **Projects (R&D):**

- A ten-stack sample with “vtap” has been impregnated with Polarit A55 wax by Cedric. Dante is testing the resistivity of the sample in ambient air at RT and in LN2. The resistivity is high in LN2 and low at RT but still good (more details with Dante).
- BORIS tube: partial discharge test in early august.
- Thermal Cycling for ITER study on resin-encapsulated polyimide wires.
- ITER Study on post-curing effects on wet-winding samples, DMA, DSC and 3-Point bending.
- Polyurethane ageing study, samples prepared for hardness testing.
- DC Breakdown testing in liquid nitrogen of polymers (Kapton HN, APICAL NP).
- DC Breakdown of gamma-irradiated laminate samples.
- Resistivity tests on polymers (Kapton HN, APICAL NP).
- Cold (Liquid Nitrogen) DMA studies on samples of composite materials.