

Polymer Laboratory Weekly Meeting Summary – 08.08.2024

➤ **General information:**

- N/A.

➤ **Operation & Services:**

- SMC 109 impregnation carried out the 6th of August with POLAB Mix. 5 days degassing at 110°C. Impregnation duration of around 3 min. It would be interesting to increase the impregnation time, either by modifying the entry valve or increasing the pressure in the vacuum chamber.
- Issue with Kirtana mould was fixed by removing the Kapton tape blocking the exit during the leak test. Impregnation will be carried out on Monday 12th of August with POLAB mix.
- Sorting of chemical waste in the lab (80 to 90 kg to dispose of). FTIR analyses will be performed on unknown products.
- Septa coils will be impregnated next week with POLAB mix.
- Installation of partial discharges set up in progress.

➤ **Projects (R&D):**

- Short beam and DMA measurements of irradiated STERIS samples.
- LN2 tensile tests samples next week.
- Ageing of polyurethane pads still ongoing for PU jacks task force. New tensile samples will be added shortly.
- Thermal cycles of encapsulated HV wires with a resin mix from TSB in the frame of a study with ITER, will be carried out the 13th of August in LN2.
- Ongoing study of the adhesive strength through T-peel tests of Kapton double sided with epoxy glue, and the correlation with the force applied during curing plus different curing cycles. Study of candidates for electrical insulation of HTS cables.
- Study of different methods to calculate the fibre volume fraction of composites plates but also 10-stacks, including weighing, density measurement and optical microscopy of 10-stacks cross section.