

Polymer Laboratory Weekly Meeting Summary – 03.10.2024

➤ **General information:**

- Welcome to Lukas, the new technical student who's here for 6 months.
- Next week, five students from the CERN/Solvay camp will come to the lab (10.10.24 at 9am) for one day. Program:
 - **Morning:** visit of the POLAB and HV Lab (Sébastien and Pavan) & 3DP presentation (Jean-Sébastien).
 - **Afternoon:** Workshop on mechanical and viscosity test (David and Cedric).
- Yesterday meeting with people from EPC (converter) which are interested to request HV lab services.

➤ **Operation & Services:**

- Reception of eRMC #104 coil on Monday. Leak test done and validated. Warming test ongoing. P
- Septa coils: last two coils impregnated were good, twelve coils to go.
- BE: bonding of connection boxes, series ongoing.
- EP: HV cords, casting of Loctite ablestik 286.
- 3DP:
 - Pipe holders for NA62: prototyping ongoing, better results with Accura 25.
 - TREFLE: 7/13 batches manufactured.
 - TE-MS: tooling in PLA.
 - New demand for PEEK part, order transfer to the 180 on their PEEK printer.
 - Printing test with porcelain and alumina filled polymer at SMI2.
- Request to cure at 200°C some components for the Composite lab.

➤ **Projects (R&D):**

- Potential aging study of butyl rubber sealant used in capacitors for the quench heater power supplies, with the aim to define a lifetime.
- Implementation of the impregnator mould, which will be used to impregnate 10 stack to test different parameters.
- Formulation of new epoxy systems for the impregnation of superconducting magnets.
- TGA analysis of fibres for desizing study.
- Trial of thermal desizing isotherm for Nb3Sn reaction cycle.
- Partial discharge testing conducted to identify insulation defects in the MCBRD orbit corrector magnet.