

## Polymer Laboratory Weekly Meeting Summary – 30.05.2024

### ➤ **General information:**

- Program received for the open days of the MSC group. Create a doodle link to add availabilities of the persons for the visits of the polymer lab. For each visit, 3 persons minimum are required (impregnation, R&D and 3D printing), ideally 4 persons. The duration of a visit should be 50 minutes maximum.
- Videoconference system could be installed upstairs of the polymer lab, however the space is not adapted (not a closed room).
- Quote to be received for the grids which will be installed upstairs of the polymer lab.
- Waiting for validation from HSE to install office walls upstairs.
- Conference next Thursday on 3D printing.
- XPEEK has properties well below real PEEK. Actually, XPEEK contains acrylate and polyurethane molecules and is therefore completely different from PEEK.
- New oven to order to replace the binder oven, probably 160L Memmert.

### ➤ **Operation & Services:**

- Anti-adherent mould for Kirtana received. Mould tested with CTD101K and it does not seem to adhere so work properly. Find information about this treatment and perform surface energy tests.
- 2 weeks (200 hours) printing in FDM for CRAB cavities (64 parts), urgent order from AP.
- Silicone rods (RTV-4250S) for LMF section being produced (160 in total).
- 100 parts to be produced for CMS School: 11T cables casted in translux resin.
- CTD101K to test for LMF CR147 and 148 coils: viscosity, plate casted in open mould for DSC and DMA testing.
- Dolomie (microdol A) bags were removed and stored upstairs of the polymer lab near the storage shelves.
- List of fillers added to EDMS (3095050).
- Calibration of the Telstar debit meter.
- Irradiated samples (10 MGy) to arrive next week.

### ➤ **Projects (R&D):**

- Mechanical testing (Compression/Impact/short beam test) of waxes, epoxies and thermoplastics.
- Chemical ageing tests on thermoplastic polyimide-insulated wires.
- PU accelerated ageing study in progress.
- DMA study of 3D Printed polymers and epoxies with different manufacturing parameters.
- Electrical tests on polyimide films for study on quench heater materials.
- Thermogravimetric analysis of fibre samples for desizing study.