



Polymer Extrusion

PROCESSING OF THERMOPLASTIC MATERIALS AND FUNCTIONAL COMPOSITES

KEY WORDS

EXTRUSION,
THERMOPLASTICS,
PROCESSING

DESCRIPTION

The service offers processing of thermoplastic, recycled, and functional composite materials under controlled temperature, torque, and speed conditions, using single- or twin-screw extrusion setups. This equipment is suitable for producing filaments, sheets, films, and thin tubes for characterization testing, industrial validation, or prototype development. The service includes preparation, adjustment of processing parameters, thermal stability monitoring, and delivery of results in digital format, along with the samples, clearly identifying the final product (e.g., extruded filaments, sheets, films, or tubes).

AVAILABLE TECHNIQUES AND/OR EQUIPMENT

- Twin screw extruder
- Single-screw extruders (laboratory and pilot scale)
- Temperature, torque, and speed control
- Thermal monitoring system during processing

APPLICATIONS

- Production of filaments, sheets, films and thin tubes
- Processability and thermal stability tests
- Validation of thermoplastic, recycled or composite formulations
- Pilot-scale manufacturing of samples for characterization or industrial testing

CONTACT US

pcferreira@ua.pt

Universidade de Aveiro