universidade de aveiro

CAPABILITY

Injection Molding of Thermoplastic Polymers

PROCESSING OF THERMOPLASTICS, BLENDS AND COMPOSITES AT LABORATORY AND PILOT SCALE

KEY WORDS

INJECTION MOLDING,
THERMOPLASTICS,
CIRCULAR ECONOMY

DESCRIPTION

The University of Aveiro has advanced injection molding capabilities for the processing, validation, and study of thermoplastic, recycled, and composite materials in R&D and technology transfer environments. The equipment includes laboratory and pilot-scale injection molding machines with precise control of temperature, injection pressure, and filling speed, enabling the production of reproducible, standardized test specimens. These capabilities allow for the processing of materials ranging from small quantities to several kilograms, facilitating the optimization of formulations, the study of processing parameters, and the evaluation of the thermal and mechanical behavior of virgin, recycled, or modified materials. Samples ready for industrial characterization and validation can be obtained, with digital delivery of process parameters and complete traceability.

APPLICATIONS

- Development and validation of thermoplastic or recycled formulations.
- Molding of reproducible standardized test specimens.
- Evaluation of processability, thermal stability and mechanical performance.
- Scale-up of materials from laboratory to pilot or industrial validation.

CONTACT US

pcferreira@ua.pt

Universidade de Aveiro