



Plastic Surface Coating

DEVELOPMENT AND STUDY OF APPLIED FUNCTIONAL COATINGS

KEY WORDS

FUNCTIONAL
COATINGS,
DEPOSITION
PROCESSES,
PLASTIC SURFACES

DESCRIPTION

The University of Aveiro offers advanced capabilities for the development, analysis, and optimization of functional coatings on plastic materials using screen printing, doctor blade coating, and spray coating. The infrastructure includes deposition systems, humidity- and temperature-controlled chambers, thermal and UV curing equipment, and advanced instrumentation for assessing thickness, uniformity, and surface finish. These capabilities enable the investigation of ink and coating formulations, the study of substrate-coating interactions, and support R&D projects in packaging, printed electronics, protective coatings, and functional devices.

APPLICATIONS

- Development and assessment of coating formulations for functional applications.
- Study of surface behaviour and substrate compatibility in plastic materials.
- Analysis of coating thickness, uniformity, adhesion, and stability.
- Research on optical, barrier, protective, or conductive coatings.
- R&D support for printed electronics and advanced packaging.
- Optimization of deposition processes from lab to pilot scale.

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