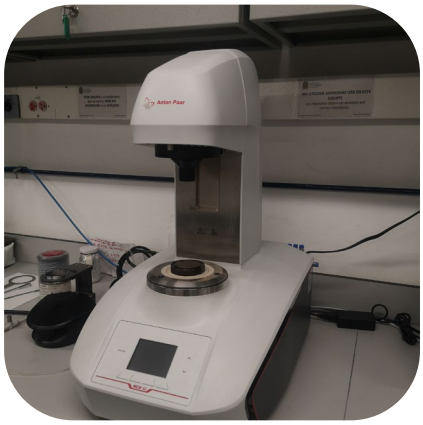
UNIVERSIDAD NACIONAL DE COLOMBIA

TECHNICAL SERVICE



Polymer Characterization

POLYMER RHEOLOGY

KEY WORDS

RHEOLOGY,

VISCOSITY,

POLYMER PROCESSING

DESCRIPTION

The flow behavior and deformation of polymeric materials in the molten state or in solution are studied. Rheology is crucial for understanding how a polymer will behave during processing (injection molding, extrusion), for quality control of raw materials, and for the design of new materials. The analysis allows the determination of viscosity as a function of the deformation rate, providing key information for optimizing processing conditions and predicting the stability and appearance of the final product.

AVAILABLE TECHNIQUES AND/OR EQUIPMENT

- Concentric cylinder rheometer

APPLICATIONS

- Optimization of extrusion and injection processes
- Quality control of polymers (resins, pellets)
- Development of adhesives and coatings
- Formulation of inks and paints
- Characterization of suspensions and dispersions
- Food and cosmetics industry

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