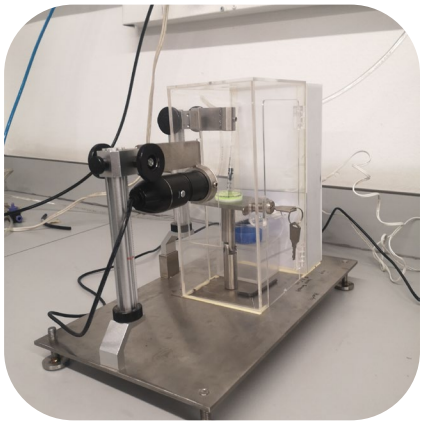
UNIVERSIDAD NACIONAL DE COLOMBIA

TECHNICAL SERVICE



Determination of Contact Angle

HYDROPHILIC/HYDROPHOBIC ANALYSIS

KEY WORDS

CONTACT ANGLE,
HYDROPHOBICITY,
HYDROPHILICITY

DESCRIPTION

The contact angle of a liquid on a polymer surface is determined to quantify its hydrophilic or hydrophobic character, following the ASTM D5946 standard. This property is key to evaluating the effectiveness of surface treatments and predicting a material's behavior in adhesion, printing, or coating processes. A low contact angle (<90°) indicates a hydrophilic surface, while a high angle (>90°) indicates a hydrophobic surface, which defines the surface's affinity for inks, adhesives, or coatings.

AVAILABLE TECHNIQUES AND/OR EQUIPMENT

- Determination of the contact angle according to ASTM D5946

APPLICATIONS

- Evaluation of surface treatments
- Quality control in films for printing and lamination
- Development of hydrophobic or hydrophilic coatings
- Adhesion problems in joints and seals
- Characterization of biomaterials and membranes

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