



Thermal Analysis

DIFFERENTIAL SCANNING CALORIMETRY (DSC)

KEY WORDS

DSC,
THERMAL
TRANSITIONS,
CALORIMETRY

DESCRIPTION

The heat flow to or from a sample is measured while it is subjected to a controlled temperature program. This test allows thermal transitions such as glass transition temperature (T_g), melting (T_m), and crystallization (T_c) to be identified. It is a fundamental technique for polymer identification, purity analysis, the study of curing kinetics, and the evaluation of the material's thermal history.

AVAILABLE TECHNIQUES AND/OR EQUIPMENT

- Determination of thermal behavior according to ASTM D3418-15

APPLICATIONS

- Identification of thermoplastics
- Quality control of recycled polymers
- Determination of the degree of crystallinity
- Curing studies in thermosets and adhesives
- Drug purity analysis

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