Differential Scanning Calorimetry





The technique

The differential scanning calorimeter (DSC) is a fundamental tool in thermal analysis. It is used in many industries – from pharmaceuticals and polymers, to nanomaterials and food products. The information, which these instruments generate is used to understand the amorphous and crystalline behavior, polymorph and eutectic transitions, curing and degree of cure and many other material properties used to design, manufacture, and test products.

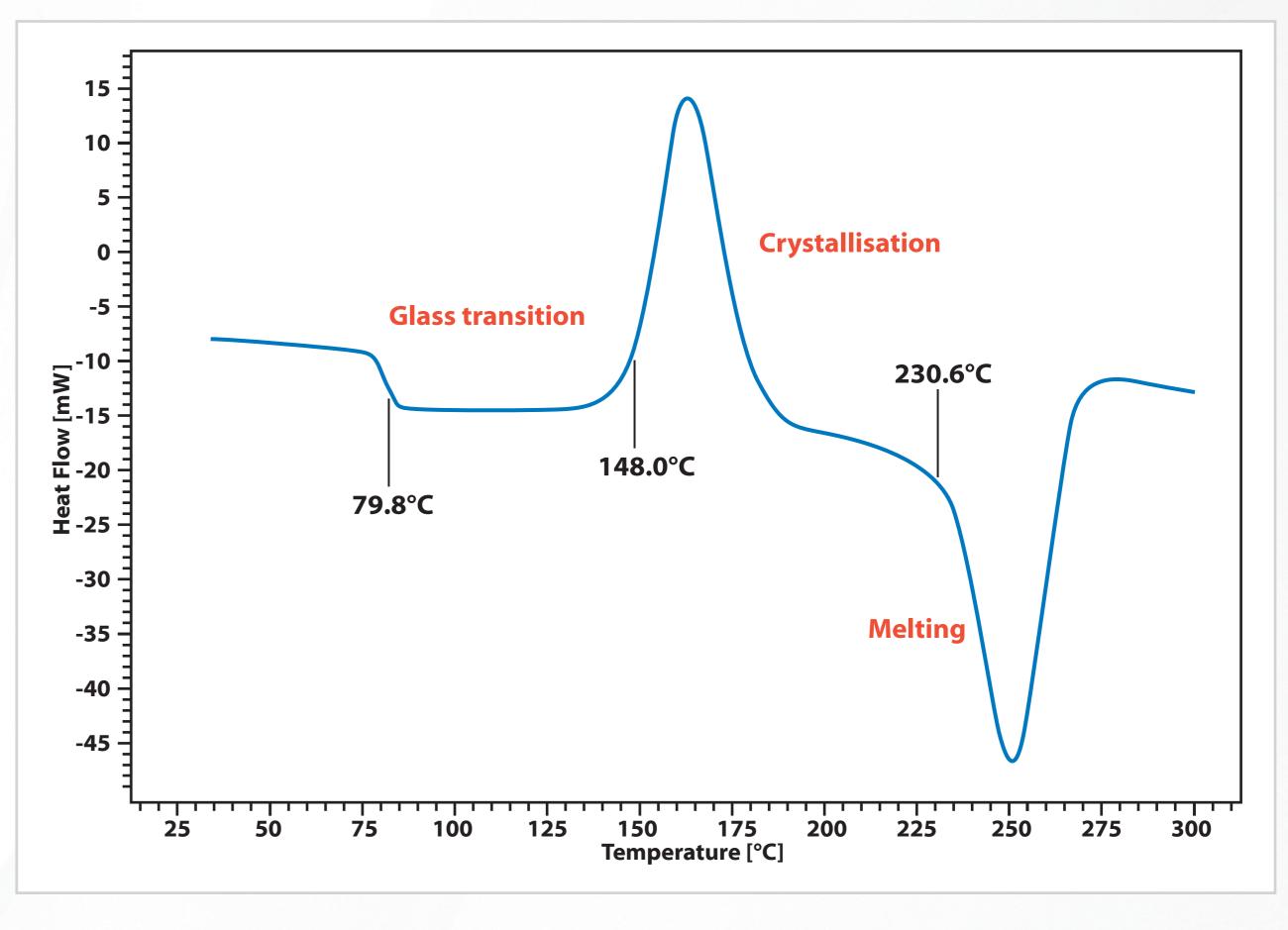
PHYSICAL PROPERTIES

- Melting / Crystallization
- Enthalpy of Crystallization
- Solid fat index
- Determination of purity
- Glass transition
- Specific Heat Capacity

CHEMICAL CHANGES

- Pyrolysis
- Oxidation & Stability
- Hardening, Vulcanization, Gelation
- Dehydration
- Denaturation
- Swelling and frothing
- Reaction enthalpies
- OIT/OTT Oxidation Induction Time/ Oxidation Onset Temperature

Measuring PET Granulate



DSC Chip-Sensor



Cp Determination using temperature modulation

