Characterization methods for adhesives and glues

The adhesive industry is looking for innovative formulations combining sustainability with quality and performance. Norlab offers solutions for the formulation optimization of greener, solvent-free adhesives and glues.

The characteristics of adhesive materials can be studied with the Dataphysics contact angle measuring systems: spreading, liquid surface tension and solid surface energy. The adhesion can be calculated as the work of adhesion (OCA series) or measured directly as an adhesive force (DCAT series).

The new contact lamella method, introduced by Dataphysics, greatly facilitates the determination of the surface tension of hot-melt adhesives.



Parameter	Method	Instrument
Adhesion force	Dynamic contact angle measurement	Dynamic contact angle measuring devices and tensiometers
Spreading behaviour	Optical contact angle measurement	Optical contact angle systems
Surface energy of solid	Optical contact angle measurement	Optical contact angle systems
Surface tension of liquid	Optical contact angle measurement	Optical contact angle systems
Temperature dependency of adhesion	Optical contact angle measurement	Optical contact angle systems
Work of adhesion estimation	Optical contact angle measurement	Optical contact angle systems

