TECHNOMELT®

Lab Testing Capabilities

Work with Adhesives Experts

Henkel offers best-in-class product development and troubleshooting from our world-class Analytical Lab Solutions Group and on-site facilities.

- Collaborate with our technical experts
- Receive immediate testing and evaluation of your product trials on our end of line and labeling test equipment.

Henkel

TECHNOMELT®

EoL	Capability Description
Case Sealer	• Simulates a production line for case and carton sealing, allowing to test in-house prior to using plant resources • Application amount, line speed and compression quality can be tested to replicate production line conditions • Samples generated from this equipment are used to validate adhesive performance under different conditions
Box Pull Tester	• Simulates a box being pulled open for evaluation of bond strength • Determine the efficacy of various bead sizes and patterns • Ability to test specific customer packages
Drum Coater	• Simulates an actual production line for adhesive application • Improves prediction of adhesive machinability (clean vs. messy) during extrusion and substrate application • Factors that can be varied include adhesive application amount (both length & thickness of bead), temperature and line speed
Adhesion	• Test performed by hand to evaluate if an adhesive will adhere to a specific substrate • Samples can also be tested at different temperature conditions specific to the end-use requirement • Adhesion is rated using % fiber tear, strength of bond and depth of fiber tear
Kanebo	• Automated equipment used to measure hot tack, open time and set speed of a hot melt adhesive • Shows the change in tack of a hot melt with change in application temperature and bead size
Instron	• Automated tensile tester evaluates bond strength of hot melt or water-based bonds applied to various substrates

Labeling	Capability Description
Water-based Labeler	• Adhesive is run on a labeler to evaluate the machinability, re-circulation stability and cleanability. This test provides a good indication of how a product will run on a production line
Ice Water Resistance	• Used to determine an adhesive's ability to withstand wet and cold conditions • Parameters that can be varied include amount of adhesive, temperature and length of cure time after the adhesive is applied and length of soak time in ice cold water
Substrate Analysis	• Used to rate a label substrate in five different categories: curl, water absorption, % moisture, stiffness, thickness and dyne level
Set Speed	• Used to determine the length of time it takes for an adhesive to develop full fiber tear after application • Set Speed is the time it takes for the adhesive to lose water and build up the internal cohesion; time for adhesive to set is also affected by presence of water on the surface of the bottle (condensation)
Tack Test	• Automated piece of equipment that measures the tack of an adhesive in its wet, semi-dry and dry stage • Measures how well the adhesive will pick up a label and how the adhesive builds up tack over time
Scrub Tester	• Used to evaluate the ease of clean-up of water-based adhesives from various rubbers and plastics used in/on the labelling application equipment
Gravure Hot Melt Coater	• Used to prepare samples to create an adhesive bond between poly label stock and includes a gravure roller which applies a diamond pattern on the label substrate; this simulates a bond that is typically found in roll-fed hot melt bottle labeling applications • Bonds can then be evaluated for strength or adhesion under various environmental conditions
Environmental Chambers	• Bridgewater TCS is equipped with a temperature and humidity controlled room where the condition is kept constant at 72°F and 50% relative humidity • Equipped with several temperature & humidity chambers (Thermotrons) allowing controlled conditions as per end use specification - they hold large amounts of sample and can be programmed to run a specific cycle • Both temperature and humidity play a very important role in both water-based and hot melt adhesive performance
Analytical Test Capability	• Infrared Spectroscopy (identifies the chemical composition of a sample) • Scanning Electron Microscope (produces microscopic images of surface) • Gas Chromatography-Mass Spectrometry (sample composition) • Hot Stage Microscopy (thermal analysis under the microscope)

HENKEL CORPORATION
10 Finderne Avenue, Suite B
Bridgewater, NJ 08807
Tel: 908.685.7000
www.na.henkel-adhesives.com/packaging

Henkel