

# CHEMICALS AND MATERIALS TESTING SERVICES

for the Plastics Industry

Intertek is a leading provider of scientific support services with specialized instrumentation and expert capability to conduct chemical and physical analysis of plastics at all stages of the design, trial and manufacturing processes.



## Our Services

Our scientific services uniquely address the fields of metals, polymers and additives and provide both long-term scientific research and rapid response problem solving.

- R&D Analytical Support
  - Polymeric mechanical property understanding through rheology and molecular weight differences
  - Trace metals, degradants, residual solvents, and volatile organic compounds (VOCs) in polymers and plastics
  - Connecting polymer chemistry with device performance
- Material Characterization / QC and Failure Analysis
  - Quick turn, accredited data generation mechanical, physical, electrical, optical
  - Analytical, rheology, weathering, thermal, flammability (ASTM, ISO)
  - Fracture and failure analysis
  - Surface chemistry and adhesion
  - Microstructure and mechanical property relationships
  - Material deformation
- Stability and Medical Device Testing
  - Elution and dissolution

- Stability and storage
- Extractables and leachables

## Our Experience

Our plastics experience ranges from polymeric components to raw materials.

- Benchmark new materials of construction
- Identify unexpected residues on circuit boards, electrodes, syringes and other devices to determine cause of failure or source of contamination
- Identify undesirable chemicals or metals in coatings or on surfaces
- Characterize contaminants on seals or surfaces
- Evaluate effect of environment factors (cleaning solutions, sterilization protocol) on device integrity
- Polymers (such as catheters, molded parts, device cases, seals, valves, dental, drug delivery devices, labels and packaging)
  - Batch-to-batch variability of polymer molecular weight and composition
  - Mechanical property impact in polymers with molecular weight changes, nanoparticle levels, API loading levels or other formulation changes

- Effect of chemical exposure or environmental conditioning (heat and humidity) on impact resistance, rupture, or other failure modes for the device
- Packaging and labeling evaluations including blocking or adhesion problems
- Identification of unknown residues, impurities and fibers

## The Intertek Advantage

Intertek supports the needs of the plastics industry through a global network of expertise delivering custom services, such as assurance, testing, inspection, certification, outsourcing, advisory and training to help you manage your risk, reach new markets, improve your performance and advance your business.

### FOR MORE INFORMATION



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