Plastics and Polymers testing

Evaluate the performance of plastic and rubber materials

Producers and processors of polymer materials as well as the manufacturers of products that include them, need to establish the exact features of these products based on their application.

Our solution

Applus+ performs a comprehensive plastics and polymers testing service tailored to each client’s needs. Our service covers:

- Designing the characterization plan or the failure analysis plan
- Manufacturing the test pieces using injection and compression techniques
- Test tool design and manufacture
- Test performance
- Results evaluation and interpretation

Our technical team performs the following range of physical and chemical characterization tests:

- Tensile, flexion, and compression tests
- Impact tests (pendulum, falling dart)
- Accelerated aging conditions simulation (Xenotest, Ozone, UV, etc.)
- Chemical composition identification
- Compatibility with chemical products
- Rheological properties (Mooney viscosity, melt index MFI, etc.)
- Thermal properties (Vicat temperature, DSC, TGA etc.)
We test a large number of polymeric materials and products under ISO, ASTM, DIN, EN, UNE; WW, and PSA standards:

- **Materials:** Thermoplastics, engineering plastics, silicones, adhesives, and thermostable resins, among others
- **Products:** Automotive components, electrical and electronic equipment, insulation, pipes, and packaging, among others

To do so, we have our own laboratories dedicated to the study of polymers and highly specialized equipment, among others:

- Universal testing machines
- Instrumented impact machine
- IZOD and CHARPY impact equipment
- Environmental chambers
- Ozone chambers
- Accelerated aging chambers
- Differential scanning calorimetry (DSC)
- Thermogravimetry analysis (TGA)
- UV-Vis spectrometer, Gas Chromatography

**Benefits**

- Ensure the product's features
- Optimize the useful life of components
- Improve design and save on raw materials

Contact: info@appluslaboratories.com