Materials Testing

Mechanical characterization and physico-chemical tests

Physical analysis

- Density
- Mechanical characterization:
  - Tensile, flexure, compression properties
  - Rigidity, sliding, operating stress
  - Charpy impact resistance
- Adhesives: shear, peel resistance (180º and 90º)
- Textiles: tear resistance
- Plastics impact resistance (cold and room temperature)
- Drop resistance
- Hardness Shore A and D (plastics and rubbers)
- Persoz hardness (paints)

Aspect

- Aspect assessment:
  - Visual comparison in colour comparison cabinet
  - Colour and gloss measurement
- Aspect tests:
  - Abrasion resistance (Martindale, Mie, Crockmeter, rotary)
  - Stone chip resistance
- Paint adhesion
  - Cross cut, St. Andrew´s Cross
- Scratch resistance
- Resistance to chemicals:
  - Immersion, drop test, wetting test
- Resistance to water immersion, saturated atmosphere, temperature

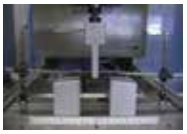
Electrical cable testing

- Electrical resistance
- Dielectric rigidity
- Pressure under high temperature
- Insulation strip force
- Cold winding
- Cold impact
- Abrasion resistance

Interior materials

- Emissions:
  - Fogging test
  - Volatility
  - Odour intensity
- Horizontal flammability



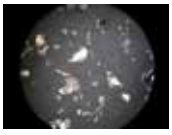











Products

- Laboratory specialised in plastic materials, foams, textiles, paints, adhesives and cables
- Component validation
- Seat foam characterization (backrest, cushion, headrest)

Linked areas

- **Climatic tests**: Performance of tests under climatic conditions to evaluate the possible degradation of properties
- **Metrology**: Dimensional control before and after the test
- **Fatigue**: Fatigue of components for subsequent evaluation of possible degradation of properties
- **Plastic product / process**: Study of new materials

R&D projects

- NATURPLAS: Development of biodegradable materials for the automobile industry
- ECOPLAST: New materials for the automobile industry: Validation of plastic materials not derived from petroleum to be used in vehicles
- SMARTCOVER: Development of plastic component with sensor function integrated in smart textile
- BIODIESEL: Compatibility study of polymers and the biodiesel system
- NANOCAV: Improvement of the catalytic converters efficiency to reduce emissions
- CATA ALICANTE: Development of a catalysis system for the elimination of pollutants in diesel vehicles