TRUSTED FOR REAL LIFE

SAFETY, QUALITY AND SUSTAINABILITY SOLUTIONS FOR
THE AUTOMOTIVE INDUSTRY

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SGS SERCOVAM is a long-time partner of international automakers technical centres and R&D services.

Their laboratories are regularly assessed by their representatives, in order to guarantee to the automotive industry suppliers the same level of quality as the tests done in the labs of the OEM. Cross-testing between OEMs and SGS assure a good match between them.

**MATERIAL TESTING, APPEARANCE TESTING**

**UV photo-ageing**

Exterior and interior parts, Weatherometer, Fade-ometer and Sunshine Weatherometer, SoSi: Over 30 devices: CI3000, CI35, O-UV, QSUN, XENOTEST, SUNTEST, UV-CON, Arc Carbone CXW and CDMC, Climatron, XR-35…

All OEMs and international testing methods.

**Resistance & appearance testing**

Scratching, scrubbing, abrasion, Xb, staining, shot-blasting, taber, martindale, spraying with all kinds of fluids, carwash testing, impact testing (dupont impact tester), thickness measurement (microscopy), adhesion…

**Sensorial analysis & emissions**

Olfactory: Evaluation of fragrant intensity and identification, on materials or parts.

Touch test: Qualitative and quantitative measurement of touch.

VOC, Formaldehyde, Fogging, etc.

**Mechanical testing**

Static and dynamic properties of materials, from -40 to +400 °C, tensile, creep, compression, flexural, fatigue, Insert pull-out resistance, flat and right angle peeling; Shore & Persoz hardness, Charpy et Izod impact; Drop tower for instrumented impact (puncture impact), ozone ageing for rubber.

**Plastics analysis**

IRTF, DSC, CPG, SM, MFI, Density, Ash rate, Vicat…

**Fire testing**

Horizontal and vertical combustibility, FMVSS 302, UL94.
**Environmental Testing**

- **Corrosion testing**
  - Salt spray, corrosion RENAULT ECC1, PSA TCAC, Alternate corrosion, Cass test, Ass test, 3C corrosion, Swaat test, 4 gaz corrosion (H2S/SO2/NO2/Cl2), Kesternich, acid vapours, condensation/immersion, Herel test, Dr Diehl, Volvo ACT...
- **Climatic ageing**
  - Hot / Cold / Humid chambers up to 84m³.
  - Thermal shock, rapid temperature variation (up to 15°C/min), thermal shock by immersion.
- **Exposure to sunlight (without UV)**
  - 6, 22 & 84 m³ chambers for most automakers tests methods.
- **Chemical testing**
  - Immersion, soaking with all kind of fluids (volatiles, fuel, oil...).

**Functional Testing**

- **IP testing & tightness**
  - Resistance to solid: IP1X to IP6X, dust (talc, Arizona, Portland cement, etc.).
  - Resistance & tightness to liquids, from IPX1 to IPX9K.
- **Vibration & shocks testing**
  - 7 shakers from 10 to 60 kN, with climatic chambers and table (VRT, -40 to +150°C): Sinus, random, shock up to 2000g...
- **Test benches design / Endurance**
  - SGS can provide the services of its engineering department to design new test benches to meet any specifications (for in house use).
- **Pressure testing**
  - Endurance under combined pressure cycles (liquid or air) and thermal, cycles, (-40 to +180°C) fluid circulation, coupling with vibration, etc.

**Electrical & electronic testing**

- **Electrical measurements** (insulation resistance, dielectric strength, resistivity, contact resistance).
- **Functional characterization**:
  - micro-cut, performance tests (power consumption, activation profile of parts), ageing combining environmental and power (power up to 500V, 510 A, monitoring current / voltage / temperature).
  - Splash Water test (with or without Arizona dust and / or NaCl, parts in operation during cycling).
- **Cleanliness of components**
  - Extraction of contaminants of parts according to ISO 16232 specifications: extraction made by agitation (according to ISO 16232-2) and extraction by rinsing (according to ISO 16232-3), by ultrasonic technic according to ISO 16232-4.
  - Analysis performed with gravimetric characterization (ISO 16232-6) and with particle sizing and counting by microscopic analysis (ISO 16232-7).

**Contact**

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