



RESCOLL
Research Company

ANALYSIS & TESTS

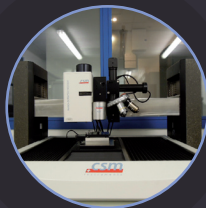
Polymers - Resins - Adhesives -
Composites - Glues - Mastics - Inks -
Varnishes - Paints - Plastics - Solvents...



Accreditation N°1-1995.
Scope available on www.cofrac.fr



Rescoll
an independent
research company
conducts



Analysis

Composition Analysis

Identification

Additive identification and proportioning

Solvent identification and proportioning

VOC & pollutant identification and proportioning

Heavy metal content

Deformulation and reverse engineering

FTIR spectroscopy, Nuclear Magnetic Resonance (NMR), Optical/IR microscopy

HPLC, Gas, liquid and gel-permeation chromatography, SEC

ICP-OES, GC-MS, GC-FID

SEM with EDS analysis

Surface Analysis

Chemical composition

Surface mechanical properties

SEM with EDS analysis

Nanoscratch, Nanoindentation

Raw Material and Finished Product Controls

Identification, purity

Viscosity, gel time

Moisture content

Density, flash point

Determination of volatile matters, ashes

Resin/fiber content in composites, composite porosity

CFS, NCV

Micrographic observation

Colorimetric testing

Non Destructive Testing (NDT)

Thermomechanical Behavior

Determination of characteristic temperatures

Degree of crystallinity

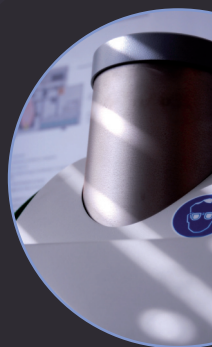
Polymerization kinetics and monitoring

Coefficient of linear oxidation

Viscoelastic behavior

Thermal conductivity, diffusivity

DSC, MDSC, TGA, TMA, DMA, Nanoflash



- Raw material and finished product controls
- Characterization of materials and assemblies in their initial state and after ageing
- Failure expertise
- Pollution and pollutant research
- Product deformation (reverse engineering)

Tests

Mechanical Testings (-120°C to 560°C)

Tensile, compression, flexural
Shear, peeling
Bonding, tack
Mechanical shock
Fatigue, creep, relaxation

Ageing

Climatic
Thermal cycling/Moisture cycling
UV A and B
Salt spray
Thermal shock
Immersion

Fire Behavior of Transportation Materials

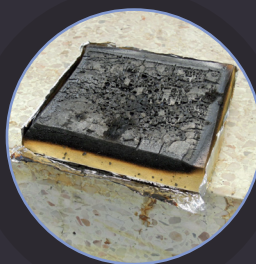
FAR/CS 25, AIRBUS and BOEING standard

Flammability
Heat Release Rate
Smoke density and toxicity
Nexgen burner (AC 20-135; ISO 2685)

Railway EN 45545, IMO

MAHRE

Limit Oxygen Index LOI
DSm, VOF4



Expertise

Failure
Process
Pollution

Rescoll's competitive advantages

- **Highly qualified staff**
(doctors, engineers and senior technicians specialized in the characterization and study of polymer materials) - *more than 10 years of scientific and technical expertise*
- **High-Tech**, regularly maintained test means based on international standards
- **Highly responsive** - *results generally delivered within a week*
- **Fast adaptation/development of test methods**



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www.rescoll.fr

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Accreditations:

NF EN ISO / CEI 17025: 2005
NADCAP «Non Metallic Materials Testing»

Certifications

ISO 9001: 2008

Qualifications:

AIRBUS
SAFRAN (FAL N° 518)
General Electric

*Court-appointed expert by first instance
and commerce court of Bordeaux*

design : www.siksik.fr



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