



# MATERIALS FOR AERONAUTICS SPACE AND DEFENSE

RESEARCH  
INNOVATION  
CHARACTERIZATION  
ECODESIGN  
TRAINING  
EXPERTISE



**RESCOLL**  
Research Company

Located in the heart of "Aerospace Valley"  
– the cluster bringing together nearly  
1300 establishments – Rescoll has made  
**aeronautics, space and defense** one of its  
main fields of expertise



Rescoll is committed to meeting the highest standards of quality –its skills have been internationally acknowledged by COFRAC and NADCAP accreditations as well as qualifications by the SAFRAN group and AIRBUS.

With more than 20 years of experience in the field of polymers, composites, advanced materials and surface treatments as well as over 50 patents to its credit, Rescoll plays a major role in national and international research and innovation.

# innovation

As technical experts on several multi-partnership projects, both French and European, Rescoll teams are currently in charge of developing :

- Materials for vibro-acoustic absorption for aircraft structures
- Composite containers for oxygen and hydrogen
- Processes for dismantling structural bonded assemblies on command
- Coatings for thermal management of satellites
- Thermal conductive composites
- Optical surface treatments for military masks and helmet visors
- Environmental analyses of amunation at end-of-life

# Rescoll

is an accredited

laboratory which

will provide you

with solutions

to meet all your

needs relating to

physicochemical,

thermomechanical

or mechanical

characterization

as well as the fire

behavior of your

materials.

## Characterization

- Mechanical tests (with instrumented specimens)
- Tensile strength and compression tests on composites and bonded assemblies
- Thermomechanical behaviour with DSC, MDSC, DMA, TGA, TMA
- Electrical and thermal conductivity
- Chemical analysis: HPLC and FTIR
- Fiber and void content and density
- Structural Health Monitoring (SHM)
- Manufacture of test and coupon specimens (autoclave, resin infusion, filament winding, etc.) machining, bonding of tabs onto specimens, instrumentation
- Ultrasonic NDT with A-SCAN or C-SCAN, tap test, acoustic emissions
- Evaluation of fire behavior of materials, according to the standards in effect
  - Flammability
  - Determination of smoke toxicity and density
  - Fire resistance of seats, cargo compartment liners
  - Propagation test on radiating panels
  - Flame resistance test
- Heat release rate measurement
- Fatigue and ageing tests

## Ecodesign

- Life Cycle Assessment (LCA)
- Sensitivity study (evaluation of environmental gain when parameter is varied)
- Definition and set up of an ecodesign approach

## Training

Rescoll is also a certified training center offering technical courses on various topics: materials, analysis techniques, chemistry regulations and their application.

- Bonding courses recognized by the European Welding Federation (EWF) for professional certification in Europe
- Materials fire behavior
- Ecodesign and Life Cycle Assessment (LCA)

## Expertise

Several Rescoll staff members are certified court experts. Rescoll also conducts expertise for research cases in the field of materials, in particular for the European Commission.

## Why choose

### Rescoll ?

Rescoll, a research company specialized in characterization and innovation in the field of composite materials and polymers, puts its skills and know-how at your service.

Rescoll's PhDs, engineers and specialized technicians are available to provide you with quick, customized solutions and a full range of services.

### Rescoll

8 allée Geoffroy de Saint Hilaire  
F-33615 Pessac Cedex  
tel. +335 47 74 69 00  
fax +335 47 74 80 13  
[www.rescoll.fr](http://www.rescoll.fr)

### Qualifications



### References

Dassault Aviation  
Techspace Aero  
Daher Aerospace  
Snecma  
General Electric  
Turbomeca  
Messier-Dowty  
Thalès Group  
Astrium Group  
Centre National d'Etudes Spatiales  
SME  
ROXEL

contact  
[aeronautics@rescoll.eu](mailto:aeronautics@rescoll.eu)



Accreditation N°1-1995.  
Scope available on [www.cofrac.fr](http://www.cofrac.fr)

