

Rescoll qualified by Airbus for tests on composites

Rescoll, a certified «contract research organization» (SRC - «structure de recherche sous contrat»), celebrated its 10th anniversary in 2011. Since its creation, the company has recruited around 40 employees. SRC-certified in 2005, Rescoll increased its turnover by a factor of 3.5 between 2005 and 2010.

Rescoll is one of the few companies in the world to be qualified by Airbus for tests on composites.

High visibility

For the company, this guarantees visibility with Airbus suppliers and recognition of its particular expertise. In concrete terms, this involves in particular determining the glass transition temperature (T_g) of composite materials for use in aerospace by means of DMA (dynamic mechanical analysis) in accordance with the ATM 1-0003 standard. «This test

is mandatory for all manufacturers of composite materials who have won contracts to manufacture parts for the new A350 aircraft project. The objective is to validate the various production batches prior to delivery,» explains Stéphanie Arigoni, Quality Manager.

Additional qualifications

Already accredited COFRAC ISO 17-025 by COFRAC and NADCAP-certified, Rescoll is now capable of responding rapidly to all kinds of test requests in compliance with the standards applicable to composites and plastics. In this framework, the company has also been recently qualified by

Airbus for a new test: «Interlaminar shear», Aerospace series - Carbon fibre reinforced plastics. Unidirectional laminates. Determination of apparent interlaminar shear strength. This test is therefore the latest addition to the tensile, flexural, density, DSC, TGA, DMA and flammability tests qualified in 2011.

Growth factor

This qualification has had a strong impact on the growth of the company. To meet demands, it has invested in 2,500 m² of new laboratories and offices and hired five new employees in the first half of

2011. The company is already working on several dozen development projects in co-operation with manufacturers from many sectors of activity.

Contract research organization (SRC)

Rescoll is a «contract research organization» (SRC - structure de recherche sous contrat) that specializes in the study of innovative industrial applications for polymer materials (composites, resins, inks, varnishes, adhesives, etc.) and the associated fields (adhesive bonding, fire behaviour of materials, and environmentally-friendly surface preparations

» It took just four years for Rescoll to become a company in its own right. Initially, the cell comprised just four people. Today, the company has a headcount of 40 and continues to grow. Through the course of its fast development, it has demonstrated a high degree of responsiveness and constant adaptation to the market in order to grasp the opportunities for growth. There have been many instances of co-operation between ADERA and Rescoll. We are partners in several European projects, such as «Carbon Inspired», which brings together various scientific organisations from Spain, Portugal and the south of France to create a transfer network in the field of the new carbon-based nanomaterials, especially for the automotive and construction sectors.

Jean Rivenc, **»**
Head of ADERA ¹

interview



JOSÉ ALCORTA
MANAGER OF RESCOLL

JEC Composites Magazine:
How do you explain the success of Rescoll?

JOSÉ ALCORTA: By combining the roles of shareholder and employee, the staff of Rescoll aim to achieve excellence in each of the services provided to their customers. In this way, alongside our technical

expertise and our research and testing resources, the motivation our staff is the keystone of our success.

Here at Rescoll, each employee is also a shareholder. This characteristic marks us out and also goes a long way towards explaining our excellent results.

JCM: Yet there is more to it than that?

J. A. : There certainly is. The staff at Rescoll, most of whom have doctorates and engineering degrees in materials-related fields, are thus extremely motivated and demonstrate outstanding company loyalty, which means that the accumulated know-how

is kept within the company.

JCM: How do you remain motivated, year-in, year-out?

J. A. : Conscious of the fact that any innovation, whether technological or managerial, or in terms of quality or new services, generally has a fairly short life cycle, Rescoll sets

new objectives annually in order to ensure continuous growth. Therefore, for the second half of 2011, along with the renewal of the COFRAC and NADCAP quality certifications, Rescoll is proposing a new service in the non-destructive testing (NDT) of composite materials via ultrasound

for the aerospace sector. To this end, the establishment of COFREN/COSAC qualification is intended to satisfy, in particular, the equipment manufacturers who have been awarded work packages for the new Airbus A340.

JCM: What are your objectives for the year to come?

J. A. : For 2012, we are already working on setting up the production of composite hand lay-up kits for our customers in the aerospace and defence sectors. By adding these two new activities to those already in operation, we should achieve a growth objective in excess of 30% for 2012.

More information :: Certifications and accreditations

- SRC certification by OSEO
- ISO 9001 certification
- ISO 17-025 accreditation for «Plastics and composites testing» by COFRAC
- NADCAP accreditation for «Non Metallic Materials Testing»
- EWF certification for DIN D-6701
- CIR approval
- Expertise called upon by the European Commission, OSEO, the French courts, etc.
- REACH National Auditor

- Training. Since 2009, Rescoll has been the sole company certified to train, qualify and award diplomas, in the field of adhesive bonding, to personnel in accordance with the international benchmarks of the EWF (European Welding Federation).

Continued growth

Founded in 2001, Rescoll obtained its SRC certification in 2005. Since then, it has carried out over 100 studies in partnership with European manufacturers, and over 40 patents have been filed. The company now has a staff of 40, the majority of whom have doctorates and engineering degrees, and boasts 2,500 m² of research lab space. In 2010, Rescoll posted revenues of €3 million and has over 600 European customers. The organization is also active in five competitive clusters.

Recycling

Recently, Rescoll filed two European patents, published in July 2011, to protect its INDAR process, whereby

the addition of an innovative functionality to industrial adhesives makes it possible to disassemble structural adhesive bonds. Strong and durable, structural adhesives can now be made reversible. The filed patents relate to the geographical scope and the variants of the technology (migration, mass, encapsulation, etc.). Several industrial applications have already been developed for this process in the aerospace and automotive fields: structural bonding for the GAIA satellite, and ECODISM and ECO-WINDAR projects for recycling end-of-life vehicles.

Environment


Rescoll has also developed a product/process system for the manufacture of surfboards by means of vacuum infusion. The company offers the market a polyester resin suited to vacuum infusion (highly fluid resin) and which meets the technical specifications of surfboard manufacturers: transparency, mechanical strength, resistance to hydrolysis and UV

resistance. For the members of the «Styrene Free» initiative, this offers a dual benefit: reduced VOCs and a lighter board through reducing the quantity of injected resin.

Eco-design

Lastly, Rescoll and the French regional government agency, DIRECCTE, have joined forces in a collective initiative whose goal is to enable 10 SMEs of the Aquitaine region (France) to address their eco-design issues. Whether it is a matter of using bio-sourced, recycled, natural or non-fossil materials in new materials, it is important to quantify the environmental impact of the innovation concerned. Therefore, this initiative serves to implement either technical studies aimed at eco-innovation or else life-cycle analyses (LCA) of these eco-innovations. Furthermore, DIRECCTE and Rescoll have launched a second initiative to study the composites bonding issues in various sectors of application (transport, construction, electronics, clothing, packaging, etc.). ■

More information:
www.rescoll.fr

 Rescoll perfectly illustrates the SRC concept: a private organization (association, SME or small-cap company) whose main commercial activity consists in providing research and development services on behalf of third parties (start-ups, SMEs, medium-sized companies, corporations, research centres, etc.). These high value-added services, which are provided in France, are nurtured through internal R&D activities that are characterised as «resourcing» and designed to ensure that cutting-edge capabilities are maintained. In addition to its high levels of competence in terms of industrial applications for polymer materials, Rescoll, whose originality resides in being a cooperative that is run as a public limited company, has undergone rapid development. This has been the fruit, in particular, of ambitious «resourcing» R&D projects.

Jérôme Billé,
Executive Officer of the ASRC²

¹ ADERA, the Association for the Development of Teaching and Research in the universities, research centres and companies of Aquitaine

² French Association of SRCs