

Artis offers engineering expertise

A year ago, Avon Rubber announced a plan to sell its rubber compounding unit while converting the materials development activity into an independent consulting company. The compounding unit is now sold while the consultancy — Artis— is growing.

By David Shaw, ERJ Staff, dshaw@crain.com

Following the sale of Avon Rubber's mixing business, its key compounding expertise remains with Avon, but under a new name: Artis (Avon Rubber Technology Innovation and Science). One year after it was founded, the company is finding its feet.

The company now employs 10 people, of whom eight are highly qualified technologists and material scientists. The first year has seen the fledgling company expand into fields such as renewable energy.

One year on

A year on, Artis generates around 60 percent of business from Avon Rubber with 30 percent coming in from outside. Most of these external projects have been won since the company was spun off from the Avon Rubber empire in November 2007.

Artis wants to build that external business as quickly as possible. Currently, Artis is looking primarily in the UK for consulting work, but increasingly is finding that the main jobs are overseas. The company already has clients in the US and in the far east region.

Mark Smithson, development scientist at Artis said some of this external work follows on from the experience developed when working on Avon's flexible fuel tank business. "That was all about fibre-reinforced rubber sheeting," he said.

He added that this expertise has helped win some interesting work for the Artis team.

Smithson said Artis has worked with all kinds of reinforcement from polyamide-6 up to aramid and carbon fibres.

He said the future of the rubber industry is, "in the interface between different materials and combinations of properties with rubber." This places different demands on the technical team, suggested Smithson. "So they might want the chemical and temperature resistance of rubber, but the abrasion resistance (say) of a thermoplastic, or the tensile strength of some other materials," he noted.

Smithson added that Artis has a special advantage over other consulting companies operating in the rubber sector. "Our background is from the commercial side of industry. We are used to solving problems, and offering solutions in realistic industrial time-scales. We're not about working out the fundamental science of the problem. We're looking for a fast, effective fix in a short time."

Smithson said the Artis can develop compounds for specific applications, but it does far more than a custom compounder can. Smithson said, "We do the engineering too. A compounding company will develop a compound and then mix it, but we look at the strength of the material and help the client design the component, We also look at interfaces with plastics and metals to make sure things will work as desired."

More than just compounding

He said Artis looks at the interface of the rubber with other materials and also performs stress and thermal analyses on the developing design efforts.

He said Artis has picked up some business in checking whether certain components meet their specifications, but the real aim of the business is to work with people and companies to solve engineering problems using creative problem-solving methods (see box, right).

He said the main marketing tool at present is word-of-mouth recommendations from satisfied customers, but if Artis needs extra marketing skills then it can call upon the marketing department within Avon Rubber, which still holds 100 percent of the shares in Artis.



CASE STUDY - VIBRATING HOSE

One example shows the kind of ingenuity the Artis team brings to engineering challenges.

The task was to measure the vibration response of a turbo charger hose. A typical solution is to use a highly directional microphone and traverse the length of the hose. Unfortunately, this tends to average out the spot readings.

Artis' answer was to use a tone arm from an old-fashioned record player. This picked up small vibrations from an intensely localised spot on the hose. Standard audio equipment could be used to amplify and condition the signal.


While audiophiles might scoff at the choice of ceramic cartridge, the engineers will admire the creativity.

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