

Dedienne Multiplasturgy® Group marches on

Dedienne Multiplasturgy® Group can face the future with serenity. A new organisational setup reinforces group synergies and offers a whole new dimension to one of the top specialists in high-performance polymer processing, who can demonstrate no shortage of projects in the composites sector and beyond.

In 2007, after 60 years of uninterrupted organic and external growth, the Dedienne Plasturgie Group was confronted with the decline in the mobile telephones sector in France, and suffered a significant drop in revenues. This new situation forced the Group to revise its strategy and set its sights on other sectors. The fruit of this reflection was the birth of the patented concept: "Multiplasturgy®", which rapidly took hold and now features in the name of the Group.

An original stance

Dedienne Multiplasturgy® Group was officially launched on January 1, with a totally revamped organization built around 5 poles of activity, two Multiplasturgy® ("multiple plastics processing") units and its know-how in

the field of high-performance polymers. The Multiplasturgy® concept is registered as a trademark and logo.



Machined parts in HPP including DuPont™ Vespel®

The first level of the new organization constitutes the poles of expertise, which are in fact industrial units handling one or more processing and decoration processes for plastic or composite materials. These

poles are intended to serve as benchmark players in their particular field of expertise. The Group is currently organized into five poles: high-precision machining, injection moulding & decoration, thermoforming & stamping, surface treatment & metallization, and electromagnetically-compatible products. The second level incorporates the Multiplasturgy® units. This level is based on two entities that are capable of acting in the capacity of co-contractors for equipment manufacturers by proposing solutions based on plastic and/or composite materials. These entities focus on the Group's target markets: Dedienne Automotive® for the automotive sector and Dedienne Multiplasturgy® for the other sectors.

By pooling the offerings and skills of its operational units, the Group is capable of



AN INTERVIEW WITH
PIERRE-JEAN LEDUC,
CEO,
DEDIENNE MULTIPLASTURGY®
GROUP

JEC Composites Magazine: Composites are at the heart of your strategy. What are your ambitions in this respect?

PIERRE-JEAN LEDUC: Our objective is to focus our development as a priority on the field of thermoplastic composites since this is a field where we can build on our Group skills, particularly regarding high-performance thermoplastic resins and our

know-how in areas such as five-axis machining of composites or the production of metal moulds. Our ambition is to expand our skills range in the framework of our Multiplasturgy® approach, in order to be able to offer our customers new solutions for addressing the issues of metal/plastic replacement.

JCM: What place are composites likely to occupy in the medium term at Dedienne Multiplasturgy®?

P-J. L.: The need for lighter structures is one of our growth drivers. This is one of the reasons why composites are increasingly popular. There can therefore

be no doubt that composites will assume a major significance over the medium term within the Group alongside high-performance polymers.

JCM: You are actively involved in FiMaLin. When will we see the first applications that are capable of supporting your growth?

P-J. L.: We are looking to a horizon of 2 to 3 years for the first applications involving continuous-fibre composites. As far as reinforced compounds featuring short or long fibres are concerned, the first applications are expected within 1 to 2 years.

→ Dedienne Multiplasturgy® Group marches on

JCM: Do you believe that eco-products have a real future?

P-J. L.: Eco-products already exist. For example, our partner ARKEMA in FiMaLin has for many years been producing polymers derived from biomass, such as the Rilsan polyamides derived from castor oil. Reinforcement applications already exist which use natural fibres such as flax or hemp. It is quite clear that the growing needs cannot be met by oil or mineral derivatives alone. In this context, not only must we turn to other alternatives but also to products that are better suited to recycling. This is why we believe that eco-design products have a real future. For example, one of our key objectives in FiMaLin is to associate a natural fibre (flax) with resins derived from biomass, in the form of both continuous (eco-composite) and discontinuous (eco-polymer) reinforcements. Bearing in



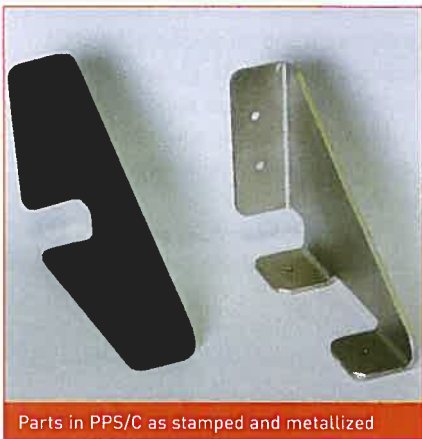
Injection moulded parts from reinforced flax PLA resin

mind the intrinsic and unique mechanical properties of flax fibre, our ambition – through FiMaLin – is to make flax fibre the number three reinforcement fibre for composites and plastics after glass and carbon fibre, and the number one natural fibre.

JCM: Process management is one of your great strengths. Why did you choose the Cage System, this most recent innovation?

P-J. L.: Induction has long been known to enable rapid heating with minimum inertia. The Cage System® process, involving a specific induction heating mechanism for metal moulds, enables the currents to be concentrated on the skin of the mould cavities in contact with the material.

This therefore eliminates the thermal inertia caused by the body of the mould, making it possible to carry out on a competitive timescale the forming and consolidation cycle for thermoplastic or thermoset composites using, for example, prepreg fabrics. As the first French company to choose a process as innovative as the Cage System, our objective was and remains to develop a means of addressing new applications in the field of composites. By extension, the same applies to our injection moulding activity for technical and high-performance polymers. ■



Parts in PPS/C as stamped and metallized

proposing innovative solutions for the manufacture of parts and subassemblies based on plastic materials, high-performance polymers and/or thermoplastic composites, from prototypes to small and large-volume production runs, for equipment suppliers and manufacturers. The company works mainly for the automotive (44%), aerospace & defense (18%) sectors as well as in the field of equipment suppliers (38%) such as electrical and electronic

equipment, transportation, connectors, luxury goods and medical equipment. In 2008, the Group posted revenues of €37.7 million for a permanent headcount of 320. In 2009, despite a squeeze on the revenues, the company's bottom line will remain positive.

Acknowledged know-how

The Group's reorganisation and the name-changes for the various entities has done nothing to restrict the skills base of Dedienne Multiplasturgy®, quite the contrary in fact. The Group proposes a complementary set of offerings and draws on its understanding of materials and its mastery of the various processing technologies. From injection to metallization shielding, via thermoforming, stamping, compression moulding, anodization and, soon, induction ... the Group is a recognised force in 30 specialities.

The Group's seven business units, five of which are dedicated to Multiplasturgy® and two to the automotive sector, are each

expert in at least two disciplines:

- The Dedienne Multiplasturgy® subsidiary based at Clamart (Hauts-de-Seine), the Group's historic site, specializes in the supply of global, innovative solutions for major corporations.
- Dedienne Machining, formerly AMPA, based at Andelys (Eure department), is the pole of expertise for the machining of technical parts based on high-performance polymers.
- In parallel with its historic thermoforming activity, Dedienne Composites, the former ROON subsidiary based at Andelys (Eure), handles the Group's composites development activities. Alongside the composite machining activities there are innovative forming facilities specifically designed for thermoplastic composites and high-performance polymers.
- The former PLASTEURE subsidiary based at Ménilles (Eure) is now Dedienne Moulding, the pole of expertise for injection moulding as applied to the non-automotive sectors, for small and

parts and high-performance thermoplastic or thermoset polymers.

- Dediennie Coating (formerly TSN), based at Evreux (Eure), is the Group's surface treatment and metallization centre for metals, plastics and composites.
- Dediennie Roumanie, formed in 2005 in Transylvania, continues to be developed as the Group's production base for Eastern Europe and works extensively for the automotive sector.
- Dediennie Automotive, formerly MECATENO and based at Gétigné (Loire-Atlantique), specializes in the injection moulding and decoration of subassemblies for automotive and mass-produced applications.

Lofty ambitions for composites

For over 60 years (the Group was founded in January 1947), Dediennie Multiplasturgy® Group has been a leader in the processing of engineering plastics, high-performance polymers and composites. The latter sector is today one of the Group's priority lines of development. To this end, it has launched two major projects. The first is the creation of the FiMaLin® ("Flax Material Fibres") Association to promote a manufacturing channel

leveraging technical flax applications.

This association was born from the desire of various manufacturers, and in particular Dediennie Multiplasturgy®, to create and structure a "technical flax" production channel dedicated to the development of eco-design products and composites featuring high-performance flax fibres.

The lightness and performance of flax-based composites make them suitable for a wide range of applications, such as transportation, sports equipment and the construction industry. Flax has the potential to become the third major fibre after glass and carbon. The association has endowed itself with the resources to match its ambitions. It encompasses, through its members, the resources for plant cultivation, for fibre processing, and for the production of rovings, technical textiles and fibre-reinforced polymer compounds. In terms of processing facilities, it can use injection, extrusion, infusion, forming and RTM tools: all processes that are the stock-in-trade of Dediennie Multiplasturgy®.

The second project concerns innovative processing technologies. After being the first French company to sign, in 2007,



Cage System installed on Dediennie pilot equipment

for a license to develop the Cage System® process for mould heating via induction as developed by RocTool, Dediennie Multiplasturgy® Group decided, in early 2009, to exercise its option to convert this into a 7-year production license, in two parts:

- The first license concerns closed-mould stamping and RTM processes. The immediate objectives are to pursue developments with regard to forming new generations of composites based on thermoplastic resins on the pilot plant of the Dediennie Composites subsidiary, and to be able to commit to medium- and large-volume industrial projects.

- A second license concerns plastics injection. This will initially enable the development of new applications using the Group's pilot plant currently being rolled out, and leading on to a large-volume production phase. The markets concerned are aerospace, automotive, transport and sports & leisure.

This new technology consolidates and expands the Group's Multiplasturgy® concept, and underpins its position as an innovative and groundbreaking company on the European plastics processing market for technical and decorative parts. ■

More information:
www.dediennie.com
contact@dedienne.com

Focus

About FIMALIN

Created in March 2009, the Cluster comprises the companies DEHONDT, ARKEMA, CLEXTRAL, DEDIENNE MULTIPLASTURGY® Group and TERRE DE LIN, as well as the INSTITUT TECHNIQUE DU LIN (Technical Flax Institute).

The association has set itself the following objectives and missions:

- to be a pole of reference for the development of technical flax;
- to promote the establishment of a development platform bringing together all those concerned: major manufacturers and innovative SMEs, both producers and users; research centres and technical institutes; educational establishments;
- to identify market needs and consolidate R&D projects and initiatives around a value chain covering every stage of the production channel from the applications right down to the sowing of seeds;
- to provide creative input vis-à-vis the public authorities in terms of development strategy, action programmes and changes to the regulations or standards;
- to encourage the manufacture of eco-design products, mainly using plant-based materials, without negatively impacting the food industry and while respecting the imperatives of sustainable development;
- to promote this group structure and build on the sector's appeal.