ARMOR launches a new industrial activity to produce ultra-thin smart films for connected objects

ARMOR is continuing to diversify its operations with the launch of high-tech coated films for new applications, including an initial use in connected objects.

This has been a natural diversification for ARMOR, a company committed to the fourth industrial revolution

To support its growth, ARMOR has continuously improved its expertise in high-precision thin-film coating technology. This expertise has been in use since the 1990s, for thermal transfer ribbons used in barcode printing. In recent years, this knowledge has created an opportunity for ARMOR to diversify, for the first time, into the renewable energies sector. Initially, this was done with flexible, thin photovoltaic film, then with current collectors for batteries. ARMOR is further extending this development and is announcing today its diversification into high added value coating films. To achieve this, the company has used its expertise in wet polymer formulation and in high precision coating. Its latest-generation process knowledge and industrial equipment enable the company to offer its customers customizable solutions, on a large scale. “We are targeting the energy markets (storage, transport, conversion), the flexible and printed electronics markets (components and systems), adhesives, the property market, and new technologies such as connected and smart clothes and objects. So ARMOR is developing by opening up new growth opportunities” explains Hubert de Boisredon, Chairman & CEO of ARMOR.

Applications in connected objects: an initial partnership with NOVASENTIS

The start-up NOVASENTIS is a pioneering business and a world leader in haptic actuators, specifically designed for use in wearable electronic devices. The sensors which NOVASENTIS has developed transfer information via tactile sensations, movements, or vibrations, for example, through a feeling in the wrist from a connected bracelet when an incoming call is received. The particularity of NOVASENTIS technology is in the design of the actuators. They use very thin films, which means that they can be easily integrated into devices and can offer a wide range of sensations, optimising communication between the device and the user. One of the issues for the rapidly growing “smart objects” sector is that the information received from connected bracelets or watches is often unclear or inadequate, due to the irregularity or lack of the sensation. Only a design which uses very fine, flexible and comfortable films can offer a different tactile sensation for each type of message. That’s where ARMOR’s expertise comes in. They are able to mass-manufacture thin technical films, compatible with the highly responsive haptic actuators, which are capable of emitting different signals, in accordance with the data received. These actuators will be integrated into connected watches, giving a much higher quality of tactile sensation than is the case for current actuators, by transmitting, for example, rotating sensations.

“Our partnership with NOVASENTIS is part of our strategy to develop high added value coated films for industrial applications which will simplify daily life for people” explains Hubert de Boisredon. François Jeanneau, CEO at NOVASENTIS, adds : “We were looking for a partner to help us develop our haptic actuators for the wearable electronic devices market”. ARMOR’s expertise in the coating of high-performance “roll to roll” films brought the companies together”. The two companies have been working together for several months and have successfully produced the first prototypes. Production will start in early 2017. ARMOR also continues to work on other projects and applications within its new operation.
ARMOR
ARMOR is the world leader in the coating of Heat Transfer ribbons for printing on packaging and bar code labels, the leading European producer of ink jet cartridges and the leading seller of remanufactured laser cartridges in France. The medium-sized French company is founding its growth on a strategy of co-industrialisation and sustainable innovation. Our 1,850 staff are located at 24 industrial and logistics locations on all of the world’s continents, with 724 staff in France. Armor announced an investment of €35 million in France in October 2015 for the development of its renewable energy businesses. In 2015 the group achieved turnover of €240 million, of which 80% came from exports.

NOVASENTIS
Founded in 2006 in Burlingame, California, NOVASENTIS has sales offices in Japan and Korea, and has become the leader in haptic and sensory actuators for wearable devices. They are produced using ultra-fine films and are used in mobile connected devices, the automotive industry, and the medical sector.