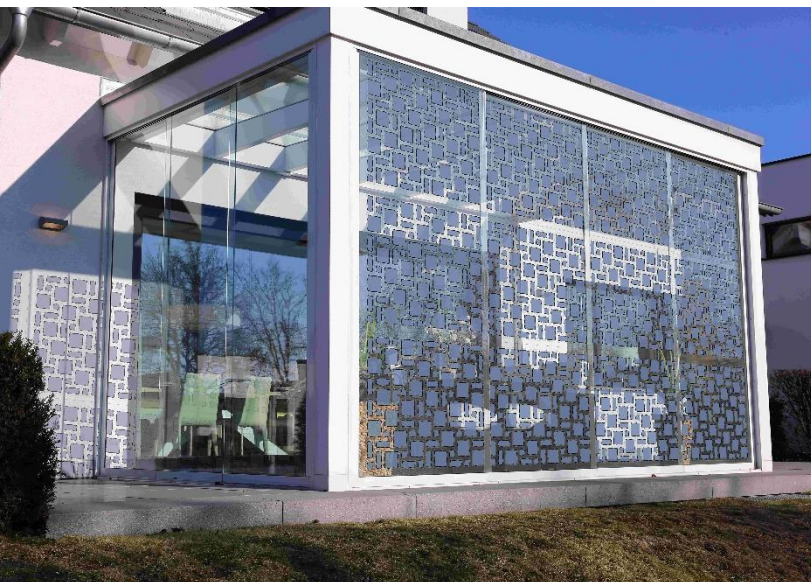


## PRESS RELEASE

Friday, April 24, 2020

### ARMOR industrializes free-form photovoltaics

*ARMOR has just reached an important milestone in the production of its flexible organic photovoltaic film, ASCA®. In early April, the company announced that it has produced free-form photovoltaics, merging for the first time its fields of complementary expertise, namely full-width modules coating, by the team based in La Chevrolière in France, and their finishing – including laser structuring – to obtain free-form modules, by the German team working at OPVIUS, a company that joined ARMOR in 2019, and which is based in Kitzingen and Nuremberg. This innovation opens up a new range of application possibilities for its organic photovoltaic film, ASCA®, establishing a new channel for the implementation of ARMOR's co-industrialization business model.*



Artist design of an integration of ASCA® components in glass construction elements.  
©ARMOR-OPVIUS

#### Free-form module

In early April, the company announced that it has produced free-form photovoltaics, merging for the first time its fields of complementary expertise, namely full-width modules coating – from formulation to production – by the team based in La Chevrolière, near Nantes, and their finishing - including laser structuring - to obtain free-form modules, by the German team working at OPVIUS, a company that joined ARMOR in 2019, and which is based in Kitzingen and Nuremberg.

#### New potential applications

This technological prowess, resulting from the successful on-going merger with OPVIUS, enables ARMOR to consider new applications for its ASCA® photovoltaic film. Thanks to free-form technology, the ASCA® film can now take on shapes only limited by your imagination. Bespoke and original, flowing into specific designs it makes the high added-value preferences of leading designers and architects a reality. Furthermore, ARMOR can produce one million square meters of its photovoltaic film annually, now including free form modules.

#### Co-industrialization: maximum market proximity

For several decades now, ARMOR's growth has been based on co-industrialization, consisting of international growth supported by production in France. For the Thermal Transfer market, in which it is the global market leader, the company produces semi-finished products in La Chevrolière, near Nantes in France, which are then further

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processed at industrial slitting units located on all the world's continents. "With the acquisition of OPVIUS, we are making serious plans to replicate our co-industrialization model within our photovoltaics business by coating full-width films in France followed by their finishing close to our customers and in accordance with their specifications", states Hubert de Boisredon, CEO of ARMOR. "The world's energy needs are immense. With the world's largest capacity and two years of production experience that has enabled us to stabilize the process, we are now ready to produce our ASCA® organic photovoltaic film in large quantities to be able to rapidly and flexibly meet the demands of new markets while creating employment in Europe", he concludes.

### **About OPVIUS**

*OPVIUS GmbH, founded in 2012 and located in Nuremberg and Kitzingen (INNOPARK Kitzingen), is among the world leaders in the field of organic photovoltaics. OPVIUS produces organic solar cells with a focus on client-specific solutions. In addition, the company is also active in the field of research and development, in order to continue to provide its clients with creative and innovative solutions. In this regard, OPVIUS uses a unique production process, combining printing, lamination, and laser techniques. This advanced technology is easily scalable and allows the production of the utmost individual, customer-specific designs. OPVIUS also helps clients with system solutions in order to integrate OPVs into already existing or new products.*

### **About ARMOR**

*ARMOR specializes in the industrial formulation of inks and the coating of thin layers onto thin films. The Group is the global market leader in the design and manufacture of thermal transfer ribbons for printing variable traceability data on labels and flexible packaging. The European market leader in innovative and sustainable printing services and consumables, the Group is a pioneer in the development and production of industrial inks and innovative materials, such as organic solar films, coated collectors for electric batteries and bespoke pieces and filaments for additive manufacturing. With an international presence, ARMOR has nearly 2,000 employees in some 20 different countries. In 2019 it posted annual revenue of €280m. Each year the group invests nearly €30m in industrial equipment and R&D. ARMOR is a responsible company committed to stimulating innovation within society.*

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