



YESTERDAY  
rigid casing encapsulation

- limited miniaturization
- cost intensive
- non-flexible



TODAY  
thin-film encapsulation

- unlimited miniaturization
- reduced cost
- flexible

### ABOUT COAT-X

As passionate experts in thin-film encapsulation, we provide unique solutions to our customers to help protect their products against harsh environmental conditions, such as corrosive media and body fluid.

We have developed a new conformal coating platform which is unique for its superior hermeticity and minimal volume utilization while keeping costs at a competitive level.

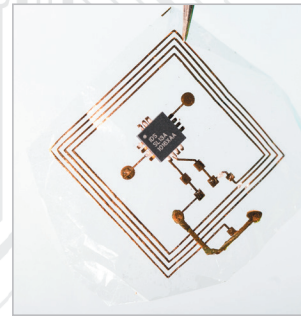
Our technology platform is an enabler for increased reliability and further miniaturization of our customers' products.

### OUR TECHNOLOGY

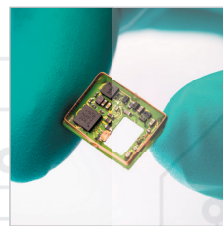
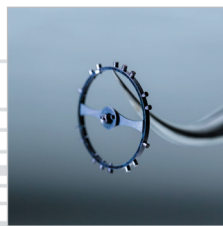
Our coating typically combines organic and inorganic layers deposited via a modified Chemical Vapor Deposition process.

A novel single-chamber reactor was developed to allow a 3D conformal deposition of the multilayer on a variety of substrate and complex geometries.

For instance, a 10-micron multilayer that alternates dense ceramic and Parylene thin films, creates a hermetic and biocompatible material that is used to encapsulate implantable medical devices.



### EXPERT IN THIN-FILM ENCAPSULATION



## OUR PRODUCT AND SERVICES

We currently offer two types of products & services closely linked to our technology platform.

1. Engineering services to tailor our multilayer, Parylene and ceramic coating solutions to meet specific performance requirements from our different customers (MedTech, jewelry, electronic boards, and sensors);
2. Routine coating of our customers' products/components in an ESD safe, class 5

cleanroom environment including proprietary surface preparation techniques, quality testing and certificate of conformity (when required).

Our offer will soon include:

- Installing a multilayer coating production lines at our customer location (includes maintenance and technology transfer);
- Super-flexible printed circuit boards and smart foldable devices.



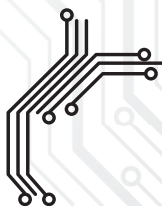
Medical implants



Watchmaking components



Wearable devices



Printed circuit boards



Thin-film batteries



Surgical instruments



Magnets

## COATING PERFORMANCE HIGHLIGHTS

- ✓ Coat-X multilayer is typically 1'000 times more watertight than a conventional Parylene-C layer of equivalent thickness (and typically 10'000 times better than epoxy)
- ✓ It can be applied to multiple substrates of complex geometries such as populated electronic circuits, metals, ceramics, polymers and biological materials
- ✓ Organic and inorganic layers are deposited at low temperature (<50°C) in a single-chamber reactor; sequence and thickness of layers can be tailored to customer's need
- ✓ Coat-X's encapsulation solution remains cost effective thanks to our ability to process parts in batches in reactors of different sizes
- ✓ Coat-X multilayer uses biocompatible materials
- ✓ Ceramic layers embedded in Coat-X's multilayer provided a superior resistance to aggressive chemicals and mechanical wear
- ✓ A few micron-thick multilayer coating remains transparent and flexible, and can be used as an electrical insulator

## CURRENT APPLICATIONS AND PERSPECTIVES

Our technology is successfully used to protect implantable medical devices, flexible electronic circuit boards and sensors that needed to work in a harsh environment, highly corrosion sensitive magnets exposed to moisture, and jewelry.

Novel applications requiring highly flexible and foldable electronic substrates are being developed.

## OUR TEAM

To commercialize the technology developed by Andreas Hogg (CEO), a team of engineers and professionals has been assembled. The team is composed of former Johnson & Johnson colleagues, Asun Rubio (Quality Manager) Yanik Tardy (COO) and Eric Nagels (CFO); experts in thin-film reactor design and industrialization, Ulrich Kroll and Jérôme Steinhauser; and an experienced thin-film coating production manager, Hervé Le Dréo.



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