

# Solutions for composites

A wide range of solutions for composite materials adapted to all industries



SOCOMORE has **50** years of experience in developing solutions for surface preparation prior to bonding, assembly and painting. These solutions are historically designed for aerospace manufacturers and maintenance service providers, where our products are renowned for their ability to resolve technical challenges. **They are designed to increase our clients'** productivity standardizing operations or reducing cycle times, optimize working conditions and reduce environmental impact.

Our clients use them to:

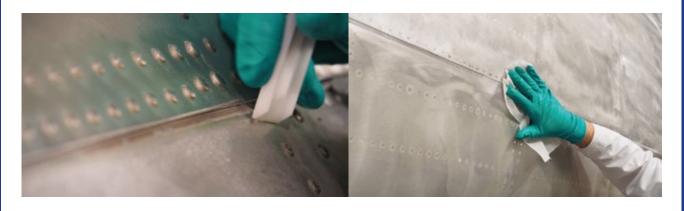
- clean composite molds prior and after molding
- ease demolding parts and extend mold resistance
- clean excess uncured sealants or remove cured sealants
- paint composite parts with functionalized coatings

More than a supplier, SOCOMORE is a **partner** who works with clients to propose complete and reliable solutions. Our R&D, technical and sales teams **adapt to local needs** and **provide assistance** to manufacturers and subcontractors plants.

### Surface cleaning and degreasing

- A wide range of high performance industry approved solvent & water-based cleaning solutions to meet critical & general cleaning requirements.
- During the preparation of the mold, in order to remove pollutants such as release agents, wax temporary protections and resin residues.
- For surface preparation prior to bonding, sealant application or painting operations.
- Low VOC, non VOC or 100% plant-based solutions.
- Available in liquid form or pre-saturated wipes to help reduce consumption, standardize cleaning operations, secure storage and offer economic, environmental & safety advantages.

Range : DIESTONE, SOCOCLEAN





### Paint adhesion promotion

- A complete range of adhesion promoters to improve the paint adhesion and durability on your surfaces.
- Efficient with water or solvent-based, high solids content primers or paints, chromated or non-chromated paint system.
- Colorless or colored to visualise the product when applied.

Range : SOCOGEL

### Mold protection

- For molds and/or parts to protect against mechanical solicitation, chemical exposure.
- Makes surfaces easier to clean.
- Can be applied on composites or metallic molds.
- Can be used in combination with our release agent during the demolding process to both protect and prolong the life of the mold.

Range : SOCOGEL

## Release agent

- Semi-permanent non-VOC release agent specifically designed for composite industry.
- Can be used with thermosetting resins (epoxy) cured up to 400 °C (752 °F) or phenolic resins, pre-pregs, resins curing at high temperature or other resins.
- Very high solid (97 %) and low VOC.
- Speed the operation with only one layer necessary, no waiting time for evaporation and easier removal of parts for molds.
- Lower mold maintenance costs because no contaminating transfer onto composite parts, easier mold regeneration and less frequend re-application than other release agent.
- Available in pre-saturated wipes to standardize operations and reduce quantity used.

Range : EUROCOAT

### Scrapers & tools

Mechanical solutions for the quick and easy removal of sealants, adhesives & resins

Range of solutions, tools and equipment for the quick and easy removal of cured, semi-cured and uncured sealants, adhesives, resins and other surface residues typically found in the composite industry:

- Maximize operator comfort & safety
- Extremely efficient & cost effective
- Scrapers can be re-sharpened multiple times, reducing waste

Range : SKYSCRAPERS, SKYMILL, SKYEDGE







### Temporary protection coatings | Range : PROPACO

- Protection against scratches, weather, UV, salty or corrosive atmospheres, acid vapors, water, grease, oils or hydrocarbon vapors during storage or interoperations.
- Washable or peelable coatings.
- Protection of painted / unpainted composite and metallic parts during forming, stamping operations or during transport.
- · Quick drying to reduce operating time.
- Long term indoor & outdoor protection.
- Low VOC.

### Erosion protection coatings \* Range: CHEMGLAZE, LBYH, PRIAM, SOCOGLAZE EPC

- Full range of solvent based, water based primers & topcoats to answer customer needs.
- High performance coatings to prevent abrasion, sand & rain erosion.
- Increase in-service lifetime.
- Available with additional functions such as conductivity.

### Primers & Topcoats \* Range : AEROGLAZE, PCEH, SOCOGLAZE

- Long term protection for structural and non structural parts.
- Overcoatable primers with environmental and chemical resistant topcoat.
- Full range of solvent based, water based primers to answer customer needs.
- OEM approved primers / topcoat.

### **UltraConductive coatings** \* Range : ULTRACONDUCTIVE

- Film and coatings for lightning strike protection.
- Provide a 55% direct weight savings, as compared to using copper expanded foils, reducing OEMs material and labor costs.
- A smooth finish, reducing the use of primer and paint to correct the poor surface finish as seen with expanded copper foil's perforations.
- Faster and easier repair which keeps your fleet ready for flight.

### Intumescent coatings Range : SOCOGLAZE INTUMESCENT

- For protection of composites against fire, in the case of hidden fire or post-accident.
- High temperature resistance, humidity resistance and resistance to chemically aggressive environments.
- Thermal insulation superior to 150°C between the exposed and the back side of the structure once activated.



<sup>\*</sup>Only for the aerospace market

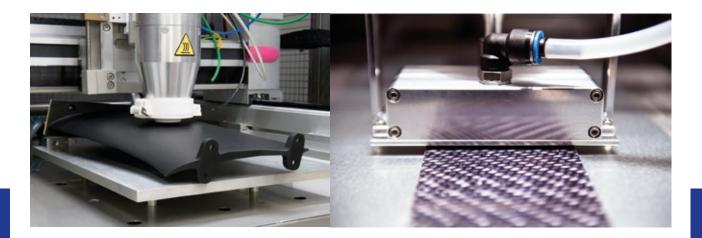
### Innovative technologies

### Surface functionalization

MOLECULAR PLASMA GROUP and SOCOMORE have partnered in 2023 to bring solutions for composites materials functionalization, surface finishing or replacement of solvent based primers.



MPG developed a unique surface functionalization technology using **cold atmospheric plasma** to graft organic chemistry directly onto any substrate in a single-step, **with less or no solvent**: scalable atmospheric Plasma process at room temperature. Thanks to its chemistry history, SOCOMORE formulates and supports the certification of the functional chemicals supplied for use with the equipment.

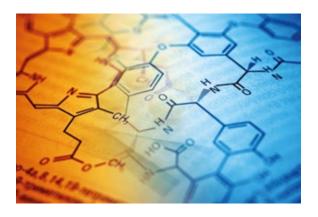


### Surface functionalization

Olnica part of Socomore group since 2022 as the tracing business unit, is a french company offering the most secure, not replicable, unforgeable traceability and authentication technology.



Olnica offers invisible marking on or inside the composite thus constituting a real "biometric passport".



### A solution for:

- Product Securization for Anti-Fraud
- Process Control & Recycling
- · Product Identity & Data Management





### Customer story

### How SOCOGEL MSP can reduce your mold maintenance operations

### **INITIAL SITUATION:**

Our customer designs and manufactures large-scale molds (in composite, Invar or steel) for various industries, including aeronautics, automotive and energy. They needed an easy to implement solution to extend their mold life time and reduce their maintenance at customers.

### **OUR SOLUTION:**

#### **SOCOGEL MSP**

SOCOMORE developed a chrome-free sol-gel solution to be sprayed on the bottom of the molds. This facilitates demolding of parts, eases the molds cleaning and prolongs the lifetime of the molds.

### **MAIN BENEFITS:**

- Mechanical & chemical protection (solvents, acids)
- Time saving: less preparation and cleaning between part demolding and quicker demolding (less adhesion)
- Molds and caul plates are more durable and stronger (50 part molding cycles)

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### socomore











Supporting our customers worldwide is our priority. We have sales and technical teams, subsidiaries and strategic partnerships located around the world to service our customer's needs.

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