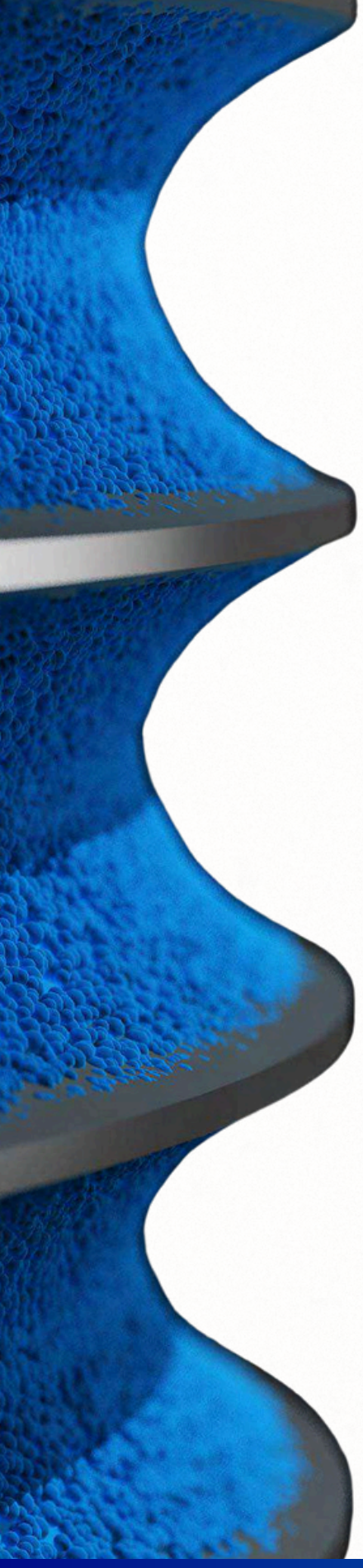
SOPRIMA INDUSTRIE

HLOCK RANGE

Watchmaking - Eyewear - Jewellery



REPLACE THE LIQUID ADHESIVES

STARTING AT ∅0.7

ON ALL METALS, EVEN PRECIOUS ONES

WHO ARE WE?

Soprima Industrie is the French leader in pre-coating of screw-threaded parts, with over 60 million parts treated each year.

For 40 years, we have been developing our assembly expertise in close collaboration with our customers in a large variety of applications. Soprima Industrie has a stock of special machines developed on site, enabling us to process a large variety of parts from Ø0.7 upwards.

Watches, glasses, jewellery... These objects are subjected to constant vibration and shock, causing the screws that hold them together to loosen progressively. In response to this problem, we have developed the HLOCK range, a solution specially designed to ensure the stability and durability of assemblies.

OUR HLOCK THREADLOCKING SOLUTIONS

We offer 2 types of threadlocking solutions for watchmaking, eyewear and jewellery applications:

Locking with micro-encapsulated adhesive:

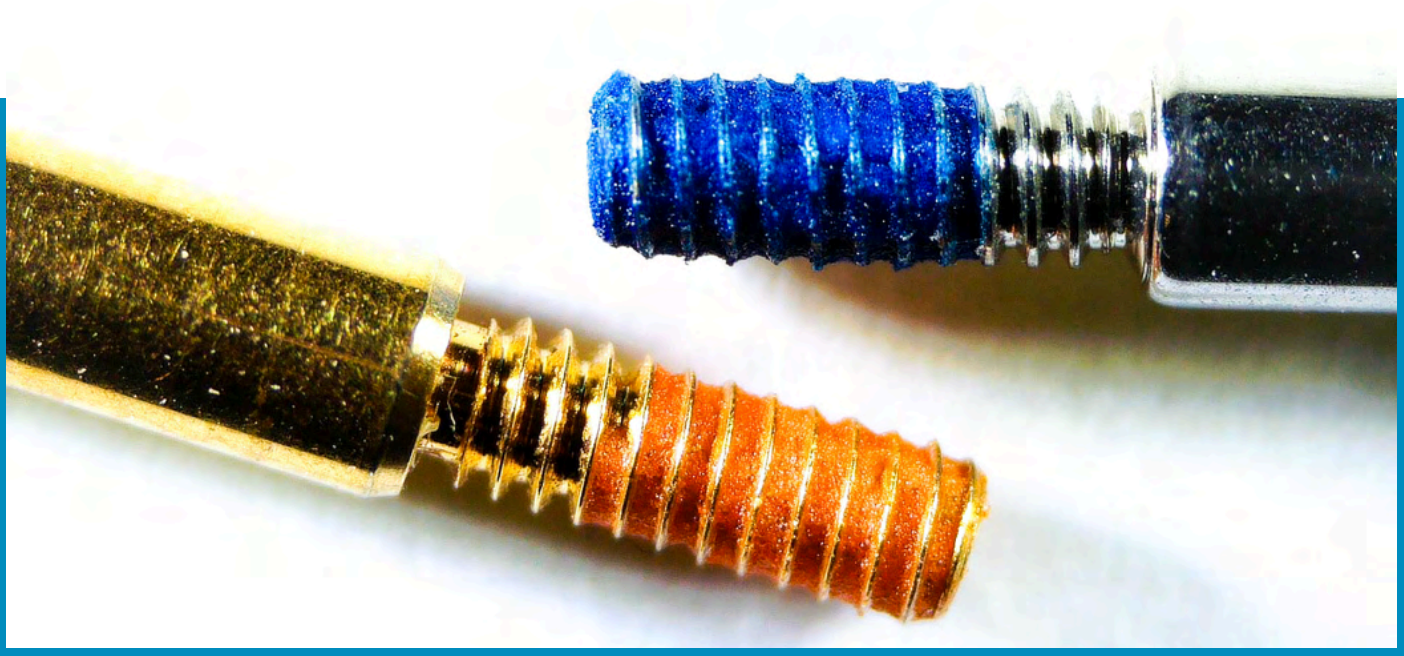
The technique consists in pre-coating the threads with a two-component Epoxy micro-encapsulated adhesive that activates only during assembly. During screwing, the adhesive released by the crushing of the microcapsules polymerizes and bonds the threaded elements together.

This is the most effective and least expensive anti-unscrewing solution.

Repositionable locking with polyamide resin:

During screwing, the polyamide deposited on the thread is compressed. The radial tension created by the elastic deformation of the product causes the locking. The locking function can be repositioned, as the polyamide deformation is reversible, making it possible to screw and unscrew several times.

The locking function is active immediately after screwing.



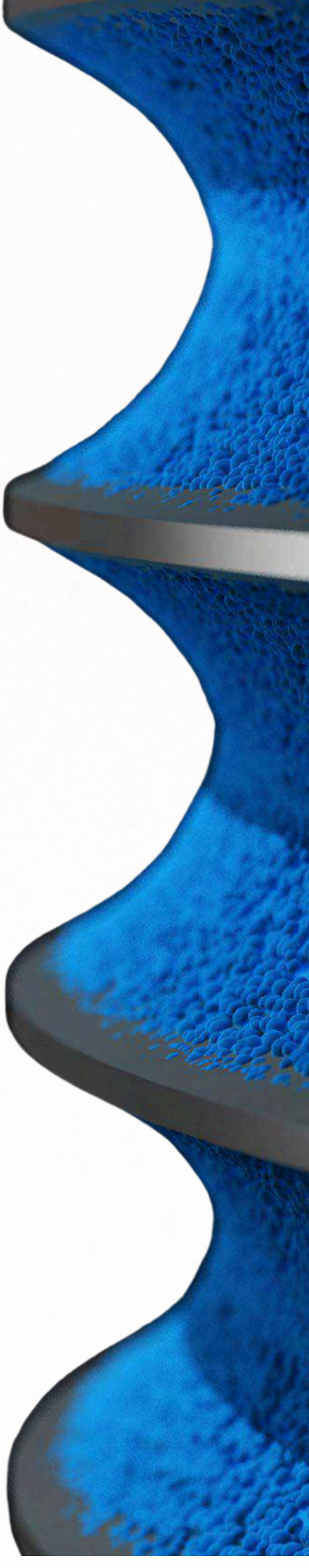
APPLICATIONS & DISPENSING TECHNOLOGY

- Together with our customers, we have developed a wide range of applications: back screws, decorative screws, bracelet screws and pins, folding clasp screws, extension link screws, headless screws, winding rods, movement screws, cage screws, crown screws, hinge screws...

- We use a variety of processes to handle all types of screws, as well as headless shafts. Our equipment is suitable for parts from S0.7 to M2.

- Coating length and thickness are determined for each application according to assembly parameters: number of engaged threads, assembly clearance, thread quality, part material, etc.

- For the technical validation of our solution, we supply sample lots to be tested by the customer. We can also carry out measurements of torques on customer assemblies.



SPECIFICATIONS OF THE HLOCK RANGE

Products	HLOCK 2510-V2	HLOCK 2353-V2	HLOCK POLYAMIDE
Function	Locking by bonding	Locking by bonding	Repositionable locking
Type	Microencapsulated adhesive	Microencapsulated adhesive	Polyamide resin
Color	Orange	Blue	Green
Standard coating length	4 to 6 threads	4 to 6 threads	4 to 6 threads
Polymerisation time at 20° C	3 days	3 days	Immediate effect
Number of uses	1 to 2 uses in certain cases	1 to 2 uses in certain cases	3 to 5 uses
Locking torque on screwing (Cfv)	Low	Low	Medium
Release torque (Cdes)	High	High	Medium
Vibration resistance	Excellent	Excellent	Good
Resistance to impact	Excellent	Excellent	Good
Chemical resistance	Good	Good	Good
Sealing assured	Yes	Yes	Yes
PFAS	No	No	No
Shelf life and storage temperature	2 Years From -10°C to 35°C	2 Years From -10°C to 35°C	4 Years From -10°C to 35°C

SPECIAL SERVICES & PACKAGING

- All pieces are controlled on entry: we carry out a batch count and a visual check.
- The pieces are treated and dried so that the patch is dry to the touch. They are then vacuum-packed.
- For fragile pieces or those with special surfaces, we carry out individual treatments. The parts received in the alveolus are treated one by one with pliers and checked individually by the operator.
- A service of bagging by small economic batches is proposed.

COMPARISON OF LOCKING SOLUTIONS

	HLOCK 2510-V2 & 2353-V2	HLOCK POLYAMIDE	THIN, HEAT-CROSSLINKED ELASTOMER	LIQUID ADHESIVES	
Simple assembly	✓✓✓	✓✓	✓	✓	The locking torque induced by micro-encapsulated adhesives is very low and does not affect screw tension. On the other hand, polyamides and elastomers induce a relatively high screw-in braking torque.
Vibration and shock resistance	✓✓✓✓	✓✓	✓	✓✓✓✓	The bonded solution delivers unrivalled results.
Multiple uses	✓	✓✓	✓✓	✓	Polyamide and elastomer solutions can be repositioned several times.
Process reliability	✓✓✓	✓✓✓	✓	✓✓✓	The low thickness of elastomer deposits is not compatible with the tolerances of the 2 parts of the assembly, which induce more or less significant clearances. Soprima products are less dependent on clearances, as they are deposited in thicker layers: thread fill rate > 50%.
Cleanliness	✓✓	✓✓	✓	✓	Loose particles can pollute the assembly.
Capability	✓✓✓	✓✓✓	✓	✓✓✓	Soprima can handle screws of all sizes and headless pins.
Capacity	✓✓✓	✓✓✓	✓	✓	Soprima's deposition machines, equipped with vibratory bowls and automatic conveyors, can handle large production runs of several million parts per year in very short lead times.
Aesthetically preserved parts	✓✓✓	✓✓✓	✓	✓✓	The drying temperatures of Soprima processes do not exceed 100°C. This preserves the part's structure and appearance.
Price	✓✓✓✓	✓✓✓✓	✓	✓✓	Soprima's industrial processes deliver substantial savings. The economic balance of liquid adhesives is unfavorable because the cost of application is very high.

CONTACT

Address
18 St Paul Painlevé
95310 Saint-Ouen-l'Aumône
France

Phone number
+33 01 30 37 63 31

Email
contact@soprima.com