### SURFACE IMPROVEMENT

# **COATING APPLICATIONS**



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S.P.A.



S.I.V.E. S.p.a. is an Italian firm specialised in aesthetic and functional nanostructured coatings.

The company was founded in 1976, where in a little factory and 8 employees the main core business was the production of wear resistant coatings for automotive parts.

Today, after more than 35 years S.I.V.E. is an industrial site of about 8.000 square meters, offering a wide range of surface coatings for different industrial applications to meet the specific demands of its customers.

There is a common thread running through all these years: the will of people, the ability to understand and foresee the potential of an idea and the willingness to change in order to growth.

Thanks to this spirit, today S.I.V.E. is present with its nanostructured technology in many industrial sectors and international markets.

Take great pride in the work, the ability to innovate, focusing costant improvements for new products and solutions.

New projects have led to new industrial processes.



# Thirty years of experience and new technologies

#### People

They are the real strenght of S.I.V.E. S.p.a. The sharing of ideas and experiences have led to the growth and success of the company. The professional development at all levels is essential to achieve together our goals.

#### Technologies

Research and innovation facilitate the creation of value for customers.

Cutting edge technologies to maximize the functionality of the products.









# **Research and development**

S.I.V.E. to remain a competitive company in the global market, maximizes its return on R&D investments, provides professional research staff and takes part in external projects with governments and companies.

S.I.V.E. is a partner of high levels innovation centers in the fields of painting technologies, mechatronics and manufacturing of plastics. Collaborates with regional and european projects with University and Polytechnic of Turin.







Surface Improvement

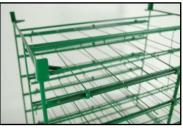
### **Market segmentation**



Electronic
Automotive
■ Home appliances
Paper Advance
□ Other

## OUR SOLUTIONS SURFACE IMPROVEMENT

- Nanostructured coatings with SOL-GEL technology, ceramic based.
- EMI-RFI Shielding: metal layers to *shield* from electromagnetic interferences.
- METAL-PVD and NANOanodizing: nanometer surface coatings based on *PVD* and *PECVD* technology.
- GreenSIVE and PTFE: high performance non-stick coatings.
- Aesthetic and technical enhancing coatings: laser engraved decoration, paper advance, high temperature resistant coating.
- Management of the entire subsets of the manufacturing process from molding (plastic and/or metal) to final assembling.















# **Transparent SOL-GEL**

A method to obtain an hydrophobic or hydrophilic surface resistant to high temperature

EasySOL<br/>andFormulation based on SOL-GEL technology.<br/>Thickness < 3 micron. Materials to be coated: steel, aluminium, glass.<br/>Prevent metal yellowing due to heat and corrosion. Easy to clean.<br/>Coating methods: spray, dip coating, spin coating

AntibacterialThanks to this formulation the killing of the bacterial load is greater<br/>than 98%.



# Ceramic coatings

#### Nanostructured coatings PTFE free

Th.Ec. Sol 2.0 Th.Ec.Sol Fire Th.Ec.Sol 2.0 Plus Recommended on surfaces where it is necessary to have maximum resistance to heat and flame. Excellent non-stick properties. Chemically inert, nanostructured and ecocompatible. Materials coated: plastics,metals,glass ...



### **EMI-RFI Shielding**

#### Metal layers to shield from electromagnetic interferences

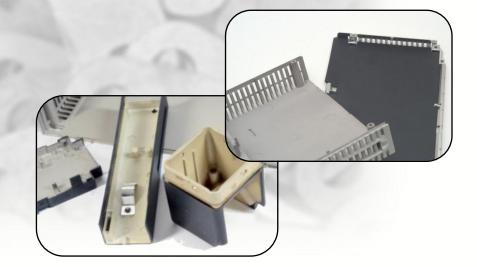


Conductive coatings

Double Side Treatment: metallization on both surfaces of the substrates; more power shielding.

Single Side Treatment: metallization, of single side. Only on areas chosen by the customer.

Wide range of plastics to coat showing excellent performance of adhesion and chemical resistance.



Available shielding between 10 and 2000 Mhz depending on the final use of the equipment.

#### **METAL-PVD and NANOanodizing** Nanometer surface coatings based on PVD and PECVD technology

- **METAL-PVD:** the process deposits a thin film (0.1-0.2 micron) of pure metals or alloys, such as AI, Ni/Cr and steel.
- NANOanodizing: this deposition tecnique allows to apply a thin film of AI + mixed oxides of AI<sub>2</sub>O<sub>3</sub> + SiO<sub>x</sub>

EMI Shielding 60-70 db@ 300Mhz

Plastic materials coated: PC, ABS, PC/ABS, PA, PP, PPS, PSU, PEEK, PE (LD-HD)...







# High performance non-stick coatings

#### PTFE:

suitable for food contact, resistant to dishwasher,non-stick. Material coated: steel, cast or deep drawn aluminium,brass...

#### GreenSIVE:



Recommended for the protection of equipment and industrial molds. The coated area is preserved from galvanic metallization. No need of stripping the process equipments. The coating makes the cleaning of masks jigs, molds, frames, process equipments easier.





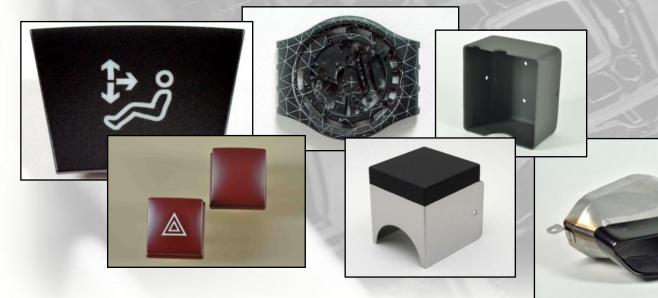


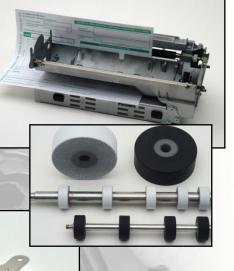
# Aesthetic and technical coatings

Aesthetic coatings for metal and plastic substrates such as laser engraved application: marking, ablation, separation of electrical masses.

Technical coatings **resistant to high temperature** especially for automotive components.

Technical coating which increases the coefficient of friction between the drive roller and paper, **to optimize the drag force.** 





#### Surface Improvement













# Contacts

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