

# TSS PRODUCTION GROUP

PVD COATING  
Luxury and durability

Color

POSSIBILITIES



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## TOTAL STAINLESS STEEL SRL

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What is PVD?

It is ART and SCIENCE

- The combination of aesthetics and functionality gives PVD coating a unique place in metalworking. Creating PVD is a process that involves treating the surface of a metal to alter its molecular properties
- PVD stands for Physical Vapor Deposition. PVD coating refers to a plating technique in which a solid material (titanium, zirconium) is vaporized in a vacuum environment and combined with various gases such as nitrogen, nitrogen, argon is deposited on substrates on the product, giving it various colors and more resistance.

Where PVD Coating technology can be used

- Automotive: Improves the function and durability of engine components and creates a luxurious look for car and motorcycle interiors and trims.

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- Constructions. Suitable for making metallic garments that require strong resistance to corrosion. The main advantage is that the products obtained with this technology do not require special maintenance, and the range of colors obtained can satisfy the highest design standards.
- Urban furniture. Due to its increased resistance to corrosion, it is recommended for any type of urban furniture that is designed to be outside
- Interior Design – Create decorative finishes in many colors and add scratch/wear resistance to kitchen and bathroom accessories.
- Hardware for doors
- Faucets (kitchen and bathroom)
- Other sanitary products
- Consumer Goods – Add quality, durability, great colors and added value to products.
- Jewelry
- Promotional items
- Watches
- Medical Devices – Add chemical/wear resistance, hardness and durable color without affecting product performance.
- Medicine: Dentistry, Orthopedics, Surgical instruments

- Sporting Goods – Quality sporting goods must look great, perform well and be extremely durable.

Why choose PVD?

Advantages of PVD coatings

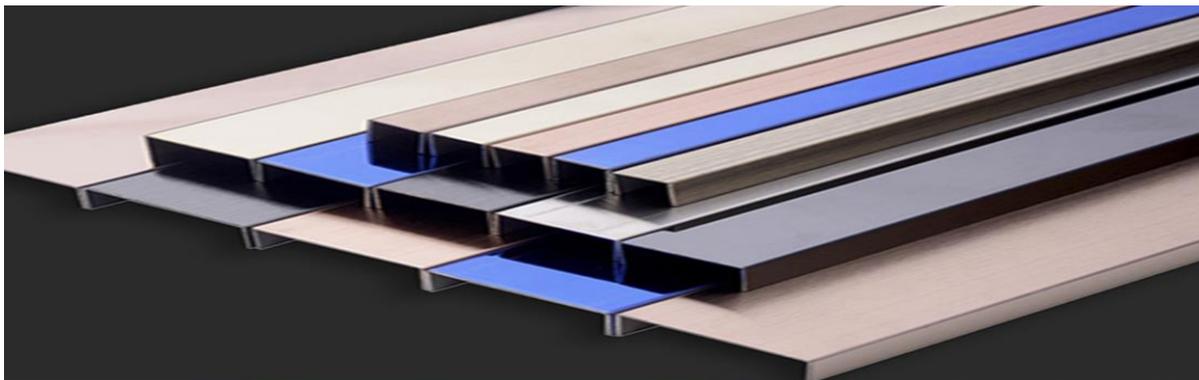
Extremely thin layer (Typically 0.25 to 10 microns, perfect for high tolerance components where dimensions or mass are critical to function.

Greater durability than stainless steel and extremely wear-resistant.

Improved appearance. Wide range of colors from gold to rose gold, blue and even black. The products on which the PVD Coating technology has been applied (in stainless steel, glass or ceramic) have an exceptional appearance and finish, an appearance that lasts over time and does not require special maintenance

- Improved scratch and wear resistance due to increased hardness
- Differentiating a product with a wide range of metallic colors.
- An environmentally friendly process that does not require the use of acids, cyanides or hexavalent chromium.

**The main colors that can be achieved with PVD Coating**



Results obtained with the help of PVD Coating can be fine. The colors obtained vary depending on the target material, the gas used or the finish of the surface to be processed. The surface of the product to be treated can be glossy, matte or satin



The benefits of PVD coatings are numerous. Your product will be more durable and valuable if it has a PVD coating, as it can provide lifetime protection and save you the trouble of routine cleaning.

The PVD coating process is a process that requires rotating the product in the chamber (from single rotation to triple rotation) to achieve the required uniform coverage and thickness. PVD coverage of inner diameters is limited to a depth equal to the opening diameter.

## Examples Finishes made with PVD Coating



