

PVD COATED STAINLESS

PVD TECHNICAL SUMMARY

High quality PVD (Physical Vapour Deposition) Coating is a vacuum coating procedure, known for its durability, hardness, and superior resistance to wear and corrosion making it far superior to traditional coating methods.

PVD Titanium Nitride Coating's Principles & Data

PVD stands for Physical Vapor Deposition: It is currently the most advanced technique for stainless steel surface coating. It is one of the very few techniques available that can obtain extremely hard coating with only a fraction of micrometre thickness. Also, it is the most ideal coating regarding environmental issues. It is qualified for usage in medical and implant applications. Another application is coating of the working edge of metal cutting tools like drills, blades, etc., to extend their life.

The brief idea of PVD: It is a combination of Vaporization and Multi Arc ionization process in a vacuumed space to form an extremely thin layer of coating to be attached onto the surface of the materials.

PVD Titanium Nitride Coating's Properties & Benefits:

- Excellent Adhesive Ability: PVD coating is highly adhesive and durable. It allows bending/cutting at various angles, even a light stamping and other processes without damaging the surface and cracking or peeling of the surface. Suitable for both interior and exterior decorative applications.
- Excellent Anti-Oxidization and Anti-Corrosion ability: Under normal conditions, PVD coating provides anti-oxidization property for the materials applied to both indoor and outdoor; long-term stable, gloss-stable; and sustains the metallic surface texture. It also has high reflecting power in the range of infrared.
- Increase Surface Hardness: According to Micro examination coating hardness, the hardness reading reaches HV1800-2250 (Hardness Vickers).
- Low Friction Coefficient: 0.21 (to 100Cr6).
- Temperature Resistance: At a temperature of 200 degrees C, for 48 hours no change on the layer.
- Environmentally friendly: The PVD process is also more environmentally friendly than processes such as electroplating and painting, with zero discharge of gas or toxic emissions, and no wastage from water or other residue.

PVD Types & Thickness:

- PVD types: PVD coating is a Monolayer. Methods and techniques include, TiN, ZrN, CrN, TiAlN, TiC, TiCN, and TiO, etc.
- Coating thickness: Micro unit, decorative Titanium coating thickness is usually between 0.3um-0.5um.
- General PVD coating colours: Carbon Black (Gunmetal), Jet Black, Gold, Rose Gold, Champagne Gold, Bronze, Yellow Bronze, Dark Bronze, AQ, Purple Black, Rose Red, Blue, Green, Pink, etc.

CONTACT

09 828 1814 | www.ambrometals.com | architectural@ambrometals.com

AMBROMETALS[®]

Stainless Steel Revolution by PVD Application

Stainless steel is no longer confined to the silvery brushed satin, or the mirrored chrome look. The Physical Vapor Deposition (PVD) process of sputtering Titanium ions in vacuum chamber under strict conditions, creates a touch, metal-ceramic film of rich colours on stainless steel. Applied on various surface finishes, it enriches their appearance and protects.

This superior colour coating will outlast any other known colouring process, without any protective lacquer. It is UV and corrosion resistant; it will not dull or tarnish with the time and it will not crack after bending the sheet, developing an unsurpassed adhesion.

Examples of Common Applications: Elevators, escalators, lift reveals, lobbies, interior wall panelling, internal roofing, commercial fitouts (luxury shops, showrooms, airports, etc.), kitchens (splashbacks, cabinetry, rangehoods etc.), Shower cabinet, fireplace surrounds, and other decorative applications for interior.

CONTACT

09 828 1814 | www.ambrometals.com | architectural@ambrometals.com

AMBROMETALS LTD