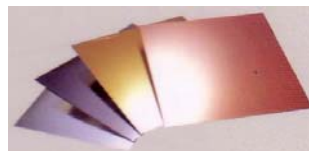


Stainless steel sheets with Arc-ion Plating

Principle of arc-ion plating

An air tight vacuum container is put in the high vacuum state. The plasma state is formed by generating arc from the arc-source by using contact electrodes. In this plasma state, the metal ion runs against the arc-source target (Ti), emitted metal particles react to injected N₂ gas and run against the stainless plate in the opposite side, at that moment, a thin coat is formed.



Test results

Hardness of coating:

Quality record

10 times stronger then stainless steel

Adhesive strength:

Cut the surface of a titanium-coated product of 2mm

Test using cellophane adhesive tape proved that there was no damage of coating.

Hardness Test:

There was no damage or change of color to the materials dropped one kg. steel ball at the height of 50 cm to the product.

| | (HV) |
|--------------------|-----------|
| Arc Source Plating | 2250 |
| Stainless (304) | 150 ~ 170 |

Resistance to scratch: Measure a load when it starts to make a scratch on the surface of the test materials scratching it at the speed of 150mm/a minute. Test shows that Arc Source Coating is 3 times stronger than chemical coating in resistance to scratch.

| | Resistance to scratch |
|--------------------|-----------------------|
| Arc Source Plating | 17,7N |
| Chemical coating | 4,9N |

Durability of abrasion: Rotation abrasion test rubbing the surface of the materials 200 times applying pressure of 500g on eraser. There was no peel separation in Arc source plating while chemical plating had peel separation.

Resistance to humidity: There was no discoloration of the product even after 500 hour exposure to the temperature of 50° , humidity 98 %.

Resistance to perspiration: There was no change of the surface after 7 times repetition in artificial perspiration (PH 4,5 JS L0848) and 16 hour drying in air.

| Resistance to perspiration | | |
|----------------------------|-------|---|
| Arc Source Plating | Gold | ● |
| (Brass) | Clear | △ |
| | Clear | ● |



(no change)



(partial corrosion)



(much corrosion)

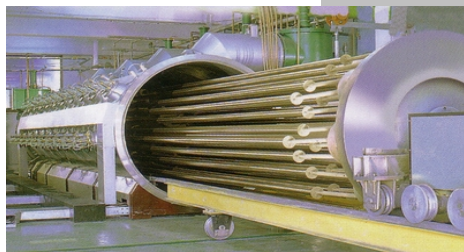


NCC is a anti-bacteria and pollution coating with a cutting edge technology.

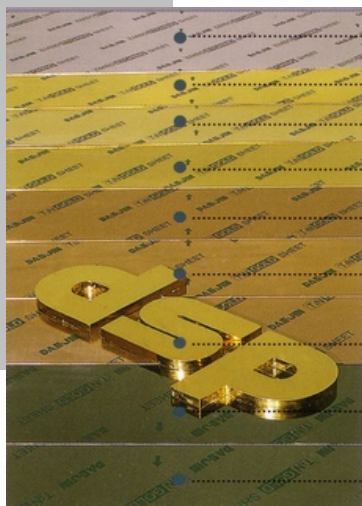
Titanium Arc-Ion Plating Innovation of Stainless Steel

DSP Architectural Design

DSP Color Sheet & Tubes



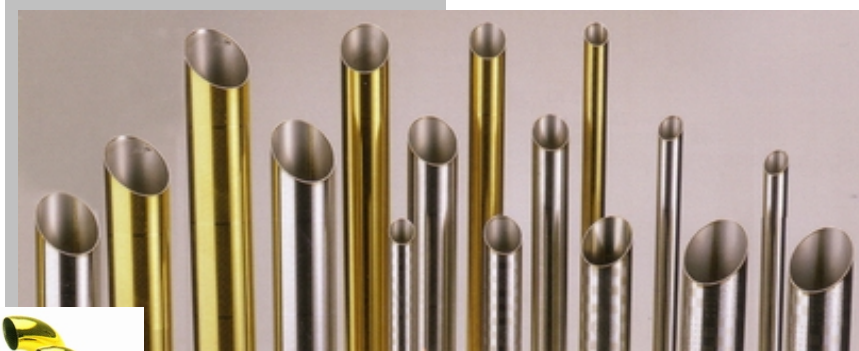
Titanium Arc-Ion Technology



- ▶ Etching Embo Silver
- ▶ Titanium Embo Gold
- ▶ Satin Vibration Gold
- ▶ Titanium Mirror Gold
- ▶ Titanium Embo Bronze
- ▶ Satin Vibration Bronze
- ▶ Titanium Mirror Bronze
- ▶ Titanium Embo Black
- ▶ Titanium Mirror Black



dsp products produced by high-tech vacuum technology have everlasting color.



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