Tin Plating

COTEC

COTEC has various surface treatment technologies and the company concentrates on products development and quality control to develop various surface treatment items

Production items and applications

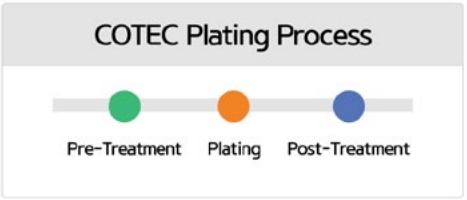
Department / Material		Defence, Atomic power, Electric products, Semiconductor parts / Fe, STS, Al, Cu	
Usage		Soldering, Corrosion, Prevention of corrosive hardened layer during nitrification, Prevention of adhesion	
Thickness (General criteria)		1~20㎛	
Applied specifications	National defense 0115-0019 (Yeon) MIL-T-10727 ASTM B 545 FEIS 104 KS D 8330	Thickness	2.5㎛~6.4㎛ for soldering 5.0㎛~10㎛ for prevention of adhesion 7.5㎛ for corrosion prevention 5㎛~15㎛ for prevention of hardening during nitrification
		Adhesiveness	No trace of separation of coating from substrate when bending 180 degree.
		Corrosion resistance test	Salt spray test with 20% NaCl for 24 hours (less than 6 pits within 2.5㎠)
Acceptance		External	
		Internal	DOOWON, HANHWA, KAI, LIG NEX 1, ADD

Equipment condition

COTEC	1,500 × 600 × 1,200 mm

Tin Plating

Capable of coating complex parts



Our technologies and their applications

Characteristic

- Tin is soft and malleable and it has a low melting point of 231.9°C.
- As a silvery metal, its heat conductivity is one third of that of silver while its electricity conductivity is one seventh of that of silver.
- Tin provides little hazard to human health; it is used as a coating for bowls. It is also resistant to acid, so it is used as a coating for food cans.
- Excellent soldering and widely used as a coating for electric and electronic parts.
- Different from zinc plating on ferrous metals, the corrosion rapidly progresses when there is a pin hole on the surface of the metal substrate because the ferrous metal becomes anodic.
- Lubrication and moving capability can be enhanced with tin replacing plating and electric tin plating on the moving parts and pistons.

Applicable parts

- Defense equipment, Aircraft parts, Automotive parts, Architectur al sash

Process