Parkerizing

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

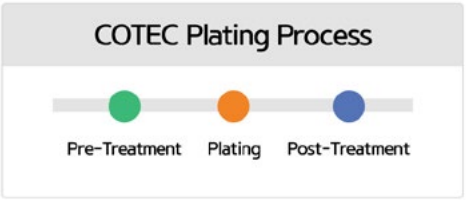
Department / Material			Aircraft parts, Defence, Automobile parts, Atomic power, Machinery for general industries / Fe
Usage			Corrosion resistance, Wear resistance, Cold machining and undercoating
Applied specifications	National defense 0115-0027 (Yeon) MIL-DTL-16232 AMS 2480 FEIS 105 P.S. 13205 IFC 40-740-01 / 02MDE DIN 50942 KS D ISO 9717 KS D 8352	Thickness	1~30㎛
		Corrosion resistance	Type M : Salt spray test for 1.5 hours Type Z : Salt spray test for 2 hours
		Weight of coatings	Type M : 5~30g/㎡ Type Z : 1~40g/㎡
		Corrosion resistance during post treatment	Type M : Salt spray test for 48 Hrs Type M : Salt spray test for 72 Hrs
		Stress removal	Keep them at 130~230°C, for more than 1hours
		Relief of hydrogen embrittlement	Keep them at 99~107°C, for more than 8hours or keep them at room temperature for 128 hours
Acceptance		External	MOOG, AH, GD, NADCAP
		Internal	HYUNDAE WIA, DOOWON, HANHWA, KAI, KAL, ADD

Equipment condition

COTEC	Mn	2,500 × 800 × 1,500 mm (2 Units)
	Zn	2,500 × 1,400 × 4,000 mm
AERO COTEC	Automated Zn	13,200 × 1,350 × 1,100 mm
	Manual Mn	2,000 × 1,000 × 1,500 mm

Parkerizing

Capable of coating complex parts



Our technologies and their applications

Manganese based phophating

Characteristic

- Gray or grayish black appearance. If scratched with a fingernail, a white streak is generated.
- Its appearance is black as there are more iron components in the coating layer or the crystal grain is bigger.
- Coating is composed of dense fine grains.
- Coating is thicker compared to zinc phosphating.
- It is used for parts requiring wear resistance.

Applicable parts

- Defense equipment parts, Industrial machinery parts, Automotive parts, Ship structure, Heavy equipment parts

Zinc based phosphating

Characteristic

- Thick coating shows a grey or greyish black appearance. It is similar to the manganese phosphating in terms of appearance but a little lighter than phosphating.
- The coating conducted with dipping for surface treatment is a dense and non-crystal coating. Excellent in adhesion and corrosion resistance, it is suitable as a fine undercoating for paints as well as coating for rust prevention.

Applicable parts

- Defense equipment parts, Industrial machinery parts and automotive parts, Undercoating for painting, Tools and freezer parts and construction parts

Iron based phosphating

Characteristic

- It is yellow, blue or jade green (Iridescent) in color.
- A thin layer can be formed in a relatively short period of time.

Applicable parts

- Automotive parts, Electronic and industrial machine parts, Construction equipment parts, Undercoating for painting

Process