Surface Treatment

The surface of the rails and carriages of linear motion system can be treated for anti-corrosive or aesthetic purposes.

The Surface Treatment consists of the following 4 types.

Electroless Nickel Plating(PS-N)

Thickness	Unilateral 3 ~ 5 μm.
Color	Shiny.
Hardness	HV500
Characteristic	1.Uniformity of the deposits, even on complex shapes. 2.Deposits have good adhesion and excellent corrosion resistance. 3.Provide an inherent lubricity and low coefficient of friction. 4.Deposits have high hardness with resistance to abrasion and great solderability. 5.These are applicable for guideway required of rust prevention or glossy appearance.

Hard Chrome Plating(PS-HC)

Thickness	Unilateral 5 μm.
Color	Silvery white.
Hardness	Above HV700
Characteristic	1.Provide a lustrous and good adhesion. 2.Stability and keep color in a humid atmosphere. 3.These are applicable for pistons and suspension elements applications ,provide characteristic high hardness and low coefficient of friction. 4.These are applicable for high hardness, acidproof alkali and abrasion resistance applications.

Black Chrome Plating(PS-C)

Thickness	Unilateral 10~15 μm.
Color	Matte Black.
Hardness	HV230~350
Characteristic	1.High efficiency light absorption characteristics and reduces light reflectivity. 2.Dispersible corrosion current function and excellent corrosion resistance. 3.Uniformity of the deposits. 4.These material are applicable for iron, steel, stainless steel, copper and aluminum. 5.These are applicable for semiconductor, LCD, optoelectronics, cleanrooms, automated production packaging / packaging and testing, optics, instrumentation industry.

Black Chrome Plating +Special Fluororesin(PS-CF)

Thickness	Unilateral 3~10 μm.
Color	Matte Black
Hardness	Above HV750
Characteristic	1.High noise reduction and abrasion resistance. 2.Excellent corrosion resistance (Resistance cyanate) and usually application on high-end semiconductor, LCD, optoelectronics, packaging, packaging and testing, clean room, medical, aerospace and marine screw turbine materials. 3.Biocompatible, ISO10993, apply to Class II or Class I medical equipment. 4.Coating provide the base layer with dense, matte black, stain resistance and anti-corrosion ability, which provides excellent adhesion and a uniform coating layer.

Note: Our standard length for surface treatment is 4 meters except black chrome plating +special fluororesin (PS-CF)which are two meters.

Note: Meet the RoHS & Reach green product standard.

Data on Comparison of Rust Prevention

Item	Description
Spray liquid	5% NaCl solution
Experimental temperature	35˚C ±2˚C
Spray pressure	1 kg / cm^2
Spray volume	1.0 ~ 2.0 ml / 80 cm^2 / hr
Relative humidity	95~ 98%

Note: Testing based on ISO 9227:1990 standards.

Species / Times	Original Material	Electroless Nickel Plating (PS-N)	Hard Chrome Plating (PS-HC)	Black Chrome Plating (PS-C)	Black Chrome Plating + Special Fluororesin (PS-CF)
10 min	△	○	○	○	○
20 min	◆	○	○	○	○
90 min	◆	○	○	△	○
100 min	●	○	○	△	○
3 hr	●	△	○	△	○
4 hr	●	△	△	△	○
5 hr	●	△	△	◆	○
26 hr	●	◆	△	●	○
35 hr	●	◆	◆	●	○
48 hr	●	◆	◆	●	△
96 hr	●	◆	◆	●	◆

○ : No rust △ : Spotty rust ◆ : Light rusted ● : Completely rusted

Species / Times	Original Material	Electroless Nickel Plating (PS-N)	Hard Chrome Plating (PS-HC)	Black Chrome Plating (PS-C)	Black Chrome Plating + Special Fluororesin (PS-CF)
Before Test					
26 hr					
96 hr