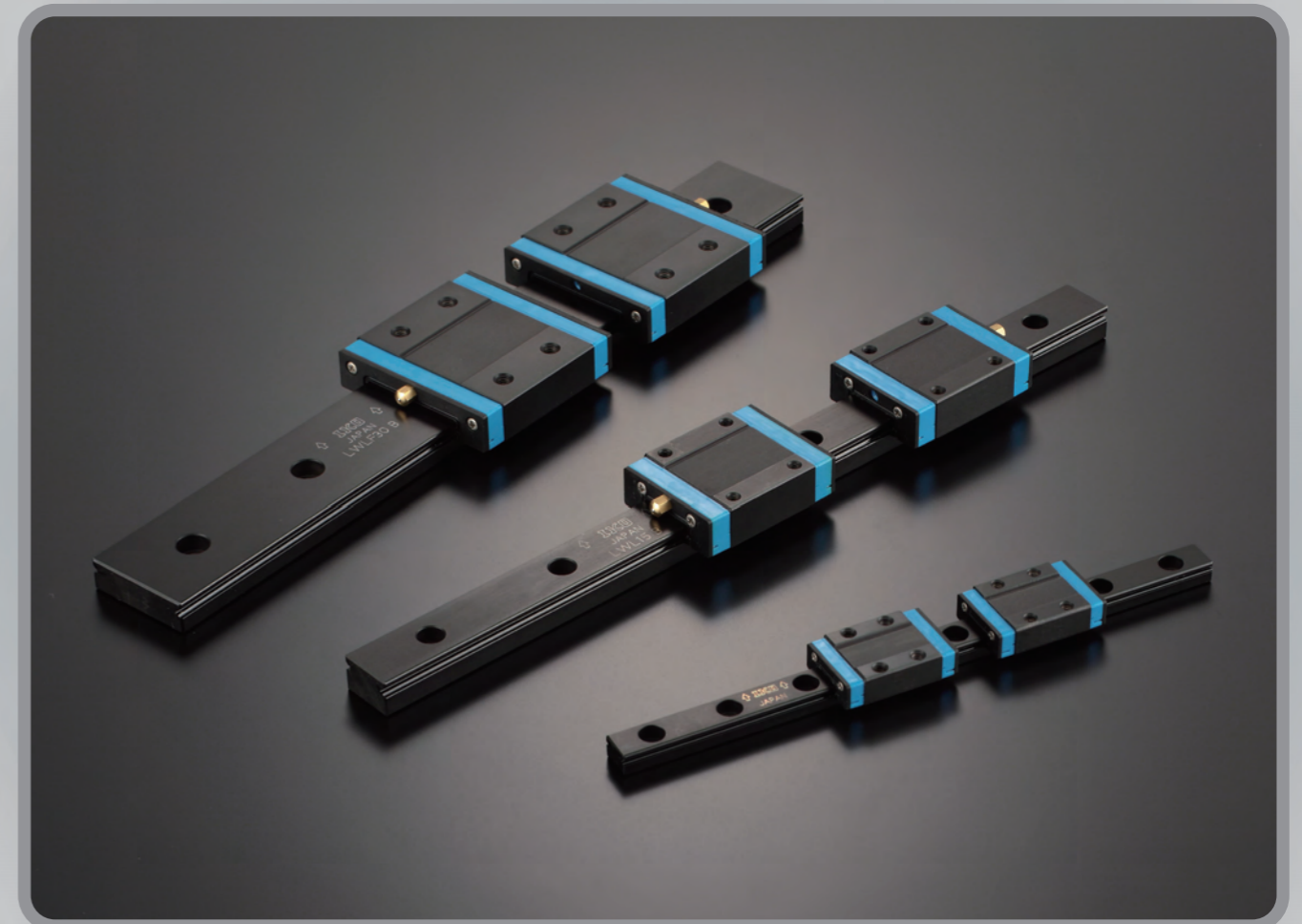




IKO Features of Special Environment Linear Way

Black chrome surface treatment



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Options from IKO for Rust prevention

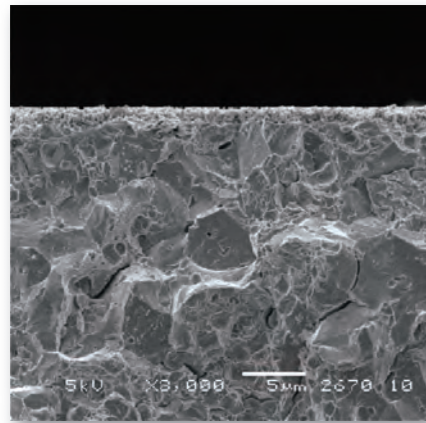
NIPPON THOMPSON CO., LTD.

CAT-2913E

Black chrome surface treatment /L

Black chrome surface treatment on the track rail and slide unit improves rust prevention capacity.

Processing state(/L) : Plating only

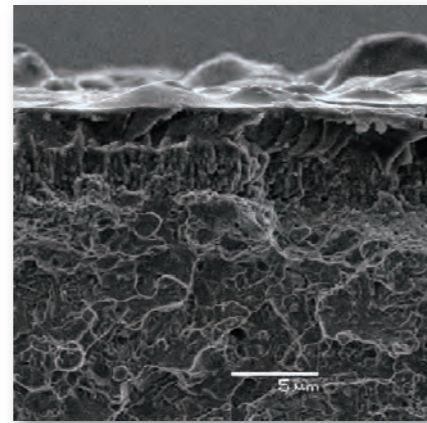


← Plating layer

← Base metal

The deposited layers are hard to be separated and can have a long-lasting high anti-rust property. The plated layer is very thin (1 to 2 μm), and superior to corrosion resistance to other plating methods. (Applicable to small L/W)

Processing state (/L): Plating + Coating with acrylic resin



← Resin-coated layer

← Plating layer

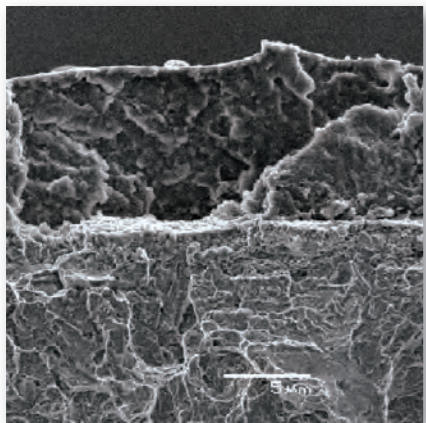
← Base metal

The treated surfaces are highly resistant to corrosion and can be widely used for places that require high corrosion resistance. The plated surface of a base metal is further coated with an acrylic resin layer. This reinforces the anti-rust property of the surface.

Fluorine black chrome surface treatment /LF

Coating of fluorinated resin is applied over the black chrome surface treatment to prevent foreign substances from sticking and improve the rust prevention capacity.

Processing state (/LF): Plating + Coating with difluoride resin + Baking

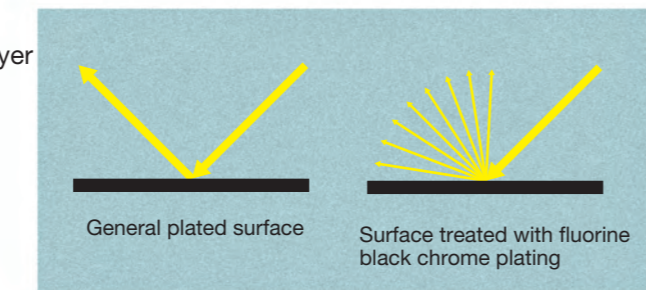


← Resin-coated layer

← Plating layer

← Base metal

This surface excels in light diffusion and has an effect to prevent malfunctions of ultraprecision positioning photo sensors of machines and instruments



General plated surface

Surface treated with fluorine black chrome plating

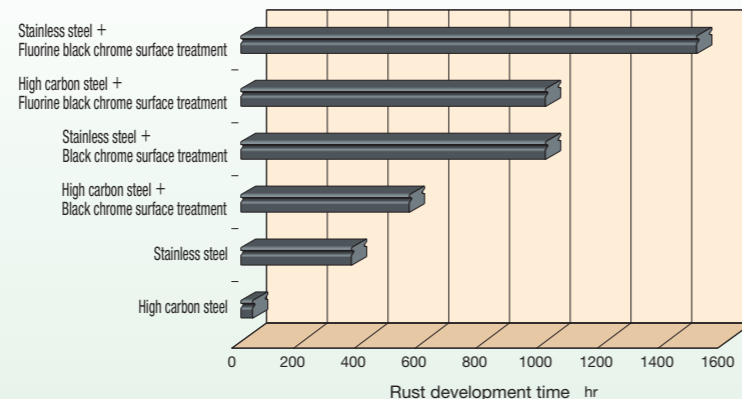
The black chrome surface is further coated with a difluoride resin. This makes the surface more highly functional. The surface-treated parts can be used as light-diffusing parts for ultraprecision positioning devices, etc. The deposited layers strongly adhere to the base material and have highly corrosion resistant, Solvent resistant and anticorrosion property. They are also very strong and consequently very versatile.

Black chrome surface treatment

Features

- 1 Thin film
- 2 Uniform film
- 3 Strong adhesion
- 4 Excellent rust prevention capacity
- 5 Low temperature processing to prevent distortion
- 6 No peeling and no effects on life and cleanroom environment

Corrosion resistance comparison based on humidity cabinet test



Test conditions Temperature 50°C, Relative humidity 95%RH

We always seek after high qualities in technology, quality, and environment, hoping customers are satisfied with our products.

ISO9001
Quality management

ISO-compliant quality control and environment management system

All our product receiving and shipping rules follow the guidelines issued by the International Organization for Standardization (ISO). So, you can leave your products to us safely and securely.

1 Barcode management

We receive customer's products, manage all of them by using their barcodes according to ISO 9001 (Quality management systems), and notify the customer of how the products are processed in real time. (when requested)



Barcode management

Part reception

2 Washing

Washing before plating affects the plating quality of products very much. For complete product washing and high productivity, we use a particular vacuum washer for small products and also a particular washer for long products.



1

2

Washing

Plating

3

3 Plating plant

We have extended the width of the plating line up to 3,200 mm and optimized the line for plating of products of various dimensions. This greatly increases the plating efficiency.



4

Coating system

4 Coating system and baking furnace
We have installed various kinds of apparatus to make coating layers as uniform as possible and a new gas baking furnace to shorten the baking time. (Improvement of coating accuracy and shortage of baking time)



Shipping

Delivery

The black chrome plating method that IKO has adopted can give superior properties to products and has been widely employed in various fields.

- Bearings (including rails, blocks, shafts, and nuts)
- Liquid crystal glass conveying and vacuum-pickup tables
- Positioning apparatus using light diffusion property
- Liquid crystal TV conveying apparatus
- Chip moulder
- Precision machine and apparatus for clean room
- Inspection tables (surface tester ETC)
- Aseismic shafts and nuts for high-rise buildings
- Wafer conveying robots
- Medical instruments
- Railways and other transportation equipment
- Rotational system controller
- Motors and related parts
- Semiconductor manufacturing equipment
- Solar cell manufacturing equipment, etc.