SKYE METAL COATING L.L.C

BEST PLATING SERVICES IN THE UAE

GROW UP

YOUR BUSINESS WITH US

Ras Al Khor industrial area 2, Dubai
043361995/+971507045388
www.skyemetalcoating.com
info@skye.ae

ABOUT SKYE

Skye Metal Coating LLC offers our customers a variety of latest plating solutions. We've come a long way, so we know exactly which direction to take when supplying you with high quality yet budget-friendly products. We offer all of this while providing excellent customer service and friendly support.

Skye metal coating engineers are a motivated bunch who always keep an eye on the latest trends in metal plating solutions and puts our customer's wishes first. That is why we have satisfied customers all over the world and are thrilled to be a part of this ever-amazing plating industry.

The interests of our customers are always top priority for us, so we hope you will enjoy our products as much as we enjoy making them available to you.

ABOUT THE DIRECTOR

Dr. Joseph Sharkey is the owner and Managing Director of Skye Metal Coating L.L.C. He has a rich and diverse experience in Electroplating as he has an electrochemical engineering degree from CSIR-CECRI (current number 1 research institute in India). He also holds a doctorate degree in Nanotechnology from the University of Oxford, UK (current number 1 university in the world). His experience has helped him develop a smooth and constructive relationship with executive colleagues, Clients, Suppliers and individuals.

As Managing Director, he is responsible for the successful leadership and management of the organization according to the strategic goals set for the organization. He provides general management and manages the day-to-day operations and assures a smooth-functioning efficient organization.

SERVICES OFFERED



• GOLD PLATING

Gold plating is a process in which we deposit a very thin layer of gold on the surface of another metal predominantly by chemical or electro-chemical plating. Gold is generally one of the protective metals of choice due to its higher standard electrode potential compared to other metals like palladium, silver, copper, tin, nickel etc. This makes it the most noble metal for plating with the highest corrosion resistance. Moreover, they are inert and quite resistant to oxidation. Gold can be plated directly on a base metal or it can be applied over an undercoating such as nickel to improve adhesion of the gold itself. The purpose for gold plating includes conductivity, decoration, corrosion protection and reflectivity.

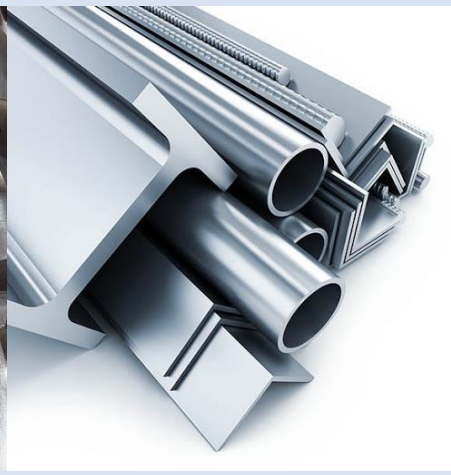
Gold is often used for conductivity instead of silver because it is a cleaner tarnish free surface. Gold is also impervious to certain chemicals making it the preferred choice with respect to corrosion protection under special applications. We are experienced in plating decorative artworks and Industrial part. Hence, we are the perfect choice for high quality gold plating works. Our gold-plated materials are of **ASTM B488** standards.

• SILVER PLATING



We provide 99.9% pure Silver-plating services on various metals. Silver Plating is mainly carried to enhance electrical contact and for decorative components such as switch gear and panel beards due to its superior conductivity & longevity compared to copper and brass. Our tin-plated materials are of **ASTM B700** standards.

• TIN PLATING


Tin plating is an electroplating process which deposits a thin layer of tin on a metal surface. Tin is mostly plated directly on the Copper material without an undercoating. Its most common uses are corrosion protection and solder ability. The excellent ductility of the metal allows a tin coated base metal sheet to be formed into a variety of shapes without any damage to the tin itself. Our tin-plated materials are of **ASTM B545** standards.

• NICKEL PLATING

Mil-C-26074 all Classes & Grades, AMS 2404 and ASTM B733

Electroless nickel is a plating process which deposits an even layer of a nickel-phosphorous alloy on a part. It's properties include corrosion resistance, hardness, and abrasion resistance. A typical thickness of plating varies from 0.000050" to 0.002" thick. The beauty of this process as compared to electrolytic processes is that the coating builds up evenly on all surfaces the solution touches with adequate circulation.

Our process deposits approximately a 88-90% nickel/ 10-12% phosphorous coating which is considered a "High-range" alloy exhibiting extremely high intrinsic corrosion resistance. Our electroless nickel deposit as plated has a hardness of about 500-600 VHN and it can be baked to produce a hardness between 900-1100 VHN.

Electroless nickel is used on molds, machine parts, valves, aircraft. We can plate it on aluminum alloys, nickel alloys, steel alloys and copper alloys.

• ANODIZING

MIL-A-8625 Type II, Classes 1 & 2 and AMS 2471

The thickness of this anodize process is normally between 0.0001" and 0.0006" thick. The build-up is 1/2 of the total thickness since 1/2 of the anodizing layer penetrates the base metal. The aluminum oxide makes the surface of the aluminum harder and it keeps the naturally occurring oxide from rubbing off the aluminum onto your hands. Extra corrosion protection comes from the sealer which is applied after the anodizing by placing metal salts in the pores of the oxide coating. The anodize coating can be dyed colors using dyes.

MIL-A-8625 Type III, Class 1 & 2 and AMS 2469

Hard anodizing is an electro-chemical process which produces an aluminum oxide coating on the aluminum surface. Hard anodizing is specifically used to increase the abrasion resistance of aluminum. The coating is very hard and machinists are not excited to drill through the coating or clean up threads which don't fit after anodizing. The thickness is typically 0.0018" to 0.0022".

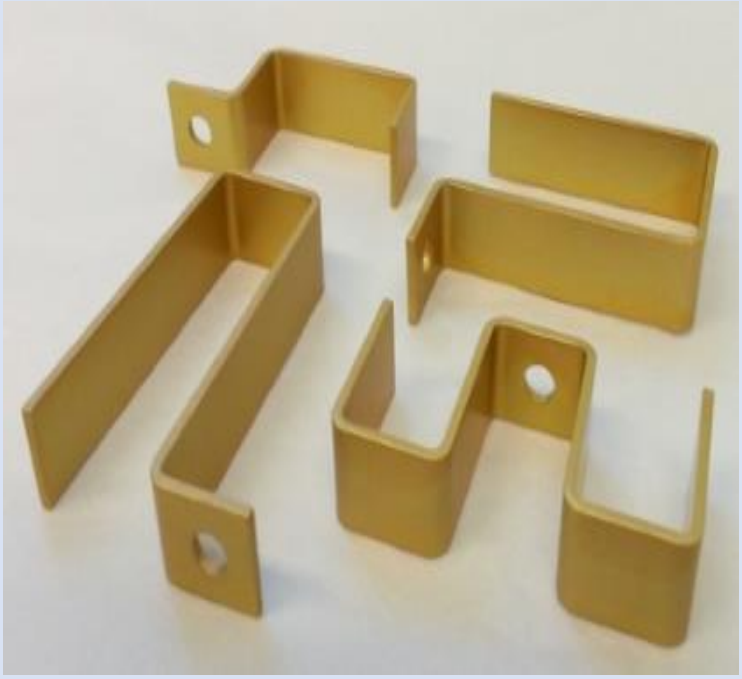
• ELECTRO-GALVANIZING

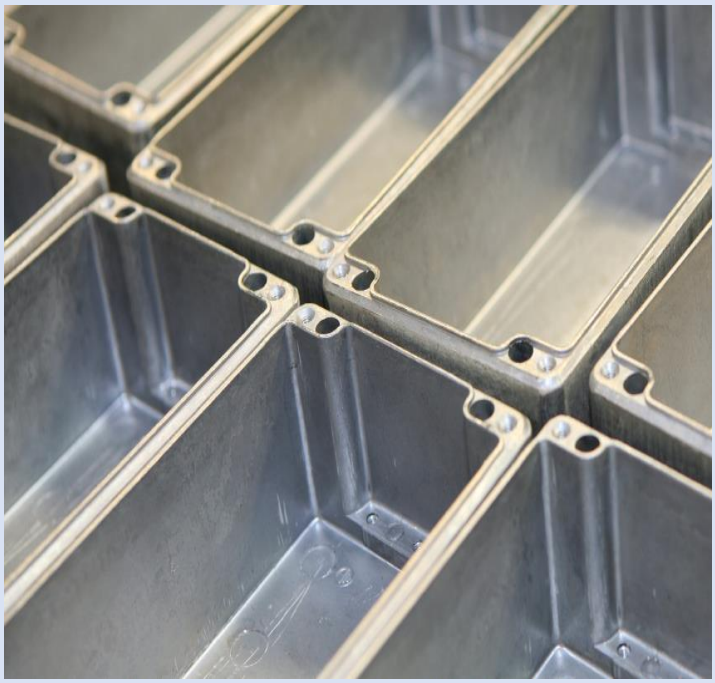
ASTM A879 and ASTM B633 specifications.

A zinc coating is one of the most effective and economical methods of protecting bare steel from a corroding environment. The zinc not only serves as a barrier between the steel and the environment, but it will also sacrifice itself to protect the underlying steel sheet. Sacrificial or galvanic protection occurs when two dissimilar metals are in contact and coupled with water and oxygen. Zinc corrodes preferentially to the iron in steel. This protection prevents corrosion of the steel and the spread of corrosion from cut edges, drill holes, etc. is minimized.

The coating finds application in screws and other light fasteners, light switch plates and other small parts. The coating is entirely pure zinc, which has a hardness about one-third to one-half that of most steels.

• CHROMATE CONVERSION COATING





MIL-C-5541F - Chemical Conversion Coatings on Aluminum and Aluminum Alloys

Chromate conversion coatings are created through a passivation process. This method renders the coated surface structure chemically inactive. A complex metal-chrome molecule film then forms around the metal, which eventually forms into a continuous gelatinous coating. This type of gelatinous coating effectively eliminates the chemical reaction process, which is what causes corrosion. Chromate conversion coatings provide continuous corrosion protection to the metal on which it is applied.

Chromate conversion films are used for corrosion resistance and a paint base. When electrical conductivity and corrosion resistance are both required, this chemical film is a great choice. The coating comes in both iridescent yellow and clear colors; however, it should be noted that the yellow gives superior corrosion resistance. The lighter color gives lower electrical resistance. It should also be noted that chemical film is fragile directly after processing and a 24-hour waiting time before handling the parts is preferable.

• BLACK OXIDE COATING

MIL-C-13924 - Black Oxide Coating for Ferrous Metals

Black Oxide is a surface treatment which forms an oxide coating on the surface of steels and stainless steels which is black. Its main application is to change the color of the steel without risk of chipping or peeling where a coating of oil is permissible. Black oxide has no corrosion protective properties on its own, but it does make a superior surface for the application of oil to keep the surface from rusting. Common uses for black oxide are tooling, small screws for consumer goods, engine parts and firearms. The hot black oxide treatment is a better black oxide coating in both function and appearance; however, when the part does not fit into the processing bath, the cold process is a good alternative.

• PASSIVATION

ASTM A967 - Standard Specification for Chemical Passivation Treatments for Stainless Steel Parts

Passivation of SS is a process which treats the surface of the metal to impede corrosion. The process has two primary functions: first, to remove any free iron on the surface of the material. Second, to promote the growth of nickel and chrome oxides which give stainless steel its excellent corrosion resistant properties. Passivation does not remove discoloration or heat scale from the surface of the part. An additional acid pickle, an alkaline descale or mechanical blasting are required to remove such material from the surface. Passivation is used in many industries and a broad spectrum of stainless steel and nickel alloys can be passivated. It should be noted that if a stainless steel is improperly heat treated there is a risk of etching the parts in the passivation process.

• THIN FILM CERAMIC COATING

- GunKote is a protective thin film ceramic coating. Our latest chemicals are state of the art - highest performing thin film ceramic coatings on the market with its unmatched abrasion, corrosion and chemical resistance that are commonly used in automotive, firearms, aerospace, knives, eye wear, consumer electronics, wearables, industrial valves, oil & gas, saltwater applications and much more.

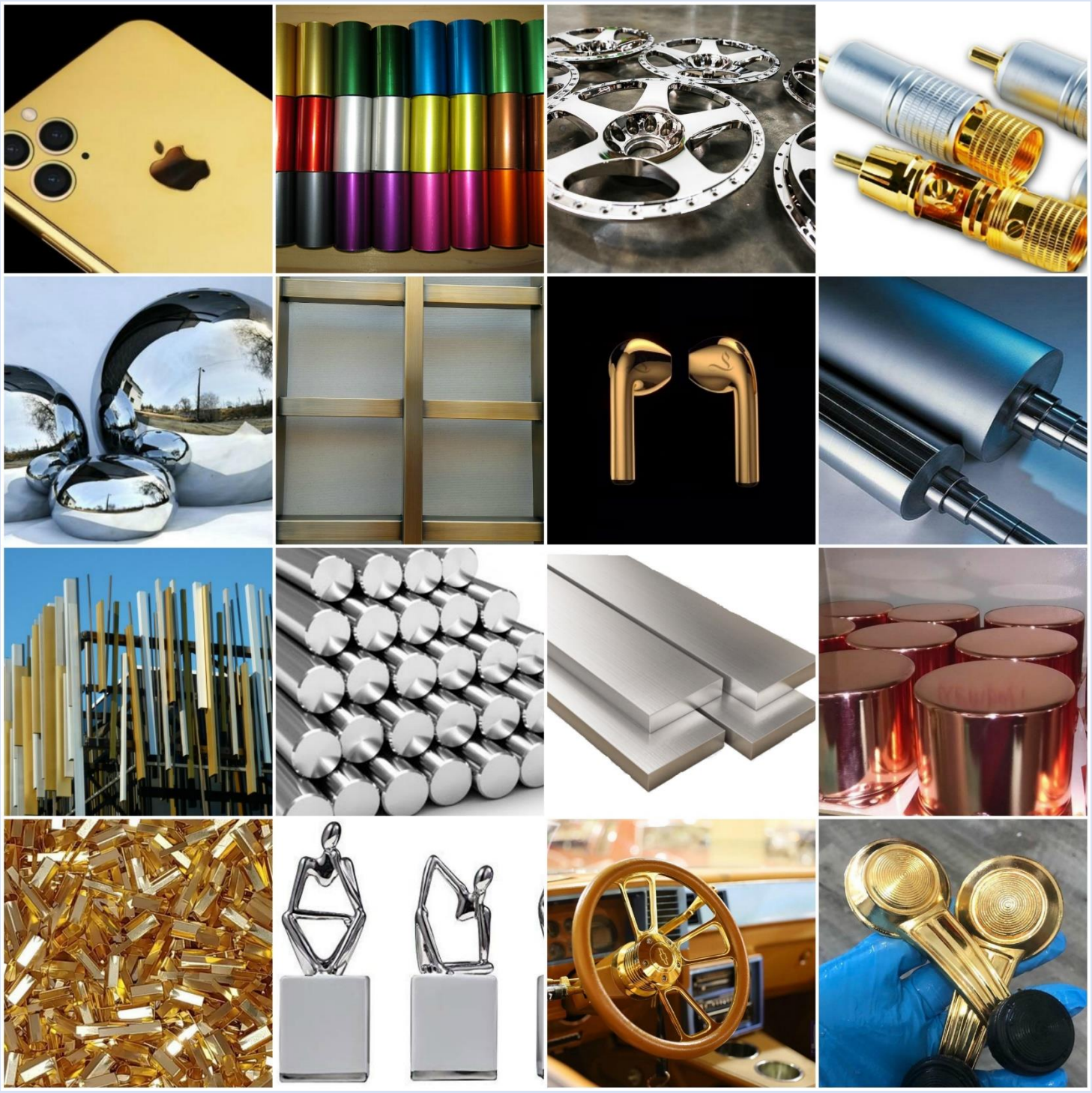
  Our latest chemicals (manufactured in 2020) have the following properties when coated as thin films:

- Salt-Spray **(ASTM B117)** > 3000 hours
- Hardness **(ASTM D3363)** - 9H (Gouge) and 8H (Scratch)
- Impact Resistance **(ASTM D2794)** – 160 in-lbs
- Flexibility (Conical Mandrel Bend) **ASTM D522** – 100% resistance
- Adhesion (Crosscut Adhesion) **ASTM D3359** – 5B (highest achievable)
- Excellent Chemical resistance (common solvents) and UV Stability (5 stars)

• FULL LIST OF OUR PLATING SERVICES

- ✓ GOLD PLATING
- ✓ SILVER PLATING
- ✓ NICKEL PLATING
- ✓ TIN PLATING
- ✓ CHROMATE CONVERSION COATING
- ✓ PASSIVATION
- ✓ ANODIZING
- ✓ BRASS PLATING
- ✓ THIN FILM CERAMIC COATING
- ✓ POWDER COATING
- ✓ BLACK OXIDE COATING
- ✓ COPPER PLATING
- ✓ ANTIQUE PLATING
- ✓ CHROME PLATING
- ✓ ZINC PLATING

CHOOSE THE BEST PLATING SERVICES IN THE UAE



If you have any questions about what we offer for consumers or for business, you can always email us directly or call us via the information below:

Phone : 043361995/+971507045388

Website : www.skyemetalcoating.com

E - Mail : info@skye.ae

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