

Electroplating on DTP

ERG provide electroplating process on many substrate parts to meet the needs of customers.

Features

Electroplating on Difficult-to-plate Materials

Materials like titanic, tungsten due to the difficulty to plate, are so called DTP materials. ERG is continuously challenging to solve these problems. We also provide electroplating process on plastics.

DTP material, Metal

■Aluminium

Electroplating on aluminum is possible. Inform to material detail if it is aluminum alloy.

Features

Light, only about 35% of the iron
Good extrudability, deep drawability
Good thermal conductivity (237 W/m · K).
High specific strength (strength/weight ratio)
Good corrosion resistance (water, sea water)
Low electrical resistance
Recycled easily
Non-magnetic, etc.

Al

■Tungsten

Electroplating is possible with special pretreatment. And also gold can be plated without underlayer.

Features

Highest melting point of all the metals,
(about 3380°C)
High hardness (about Hv3400)
Low thermal expansion coefficient (4.5 $\mu\text{m}/\text{m} \cdot \text{K}$)
Difficult to distort, warpage
Good corrosion resistance, etc.

W

■Titanium

Electroplating is possible with special pretreatment. And also gold can be plated without underlayer.

Features

Highest specific strength of all metals
Good corrosion resistance, suitable for human body, widely used in medical applications
Light, density is 4.5 (about 57% of the iron)
Non-magnetic, etc..

Ti

■Magnesium

Electroplating on magnesium is possible. Give material detail if it is magnesium alloy.

Features

Non-magnetic
Good machinability
Light, about 22% of the iron
Better specific strength and specific stiffness than steel as well as aluminum
Recycled easily, etc..

Mg

DTP material, non metal

■Engineering plastic • Super engineering plastic

Experience in electroplating on engineering plastic electroplating process depends on the plastic type, so inform to the plastics type while ordering.

Engineering plastic

Features

Strength is over 50MPa, and flexural modulus is more than 2.4GPa
Lighter than metals at the same volume.
Heatproof temperature is over 100°C, and can be used for a long period.
(Super engineering plastic can be used over 150°C for a long period.)
Features may be varied because of the plastics type or mixture in plastics.

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ERG plating



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