



Tin Plating

Through our surface treatment technology and results,
Create new values.

With its silvery-white finish and lower toxicity than other metals, tin plating is stable against organic acids—ideal for tableware and can stock. Its low melting point (232°C) supports soldering, and its softness, high ductility, and affinity with other metals suit bearings, sliding components, and electronic contacts.

Plating Methods & Baths

At ERG, you can choose from three plating methods and two bath types.

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|------------------------|-----------------------|---|
| Plating Methods | Barrel Plating | : Ideal for small components and large lots—great value with even deposition. |
| | Rack Plating | : Best when surface finish is critical or parts are delicate/complex. |
| | Mesh-Assisted Plating | : For intricate parts requiring controlled stacking/adhesion. |
| Bath Types | Bright Tin | : Silvery-white, reflective, low-resistance finish that looks good and conducts well. |
| | Semi-Bright Tin | : Softer sheen that curbs whiskers and coats complex forms uniformly. |

Property	Glossy Tin Coating	Semi-Glossy Tin Coating
Appearance	Silver-white with high reflectivity; decorative and visually appealing	Subdued tone with moderate reflectivity; suitable for functional applications
Coating Hardness	Hv100; offers partial scratch resistance	Hv110; offers partial scratch resistance
Solderability	Excellent wetting and spreading characteristics	Stable wetting and spreading performance
Heat Resistance	Maintains gloss under high-temperature heating	Maintains gloss under high-temperature heating
Weather Resistance	Stable corrosion resistance against organic acid saltwater	Stable corrosion resistance against organic acid saltwater
Whisker Formation	High risk under mechanical stress	Low risk even under mechanical stress
Discoloration	Tends to discolor (blue, purple, brown) under high heat	Discoloration suppressed by barrel processing
Discoloration Risk	High risk under high-temperature heating	Low risk under high-temperature heating
Applications	Crimp terminals, sleeves, decorative parts	Crimp terminals, sleeves, decorative parts

We recommend the ideal plating method and bath for your product.
Get in touch with us.

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ERGco.,LTD.

250-6, Uda Tomioka-city
Gunma 370-2451 Japan
TEL +81-274-62-2421
FAX +81-274-64-2379

