



Version: 10 September 2025



DIALLOY[®] 822

TIN-ZINC-ELECTROLYTE



Matt gray cadmium substitute for the highest technical demands, even under extreme operating conditions

DIALLOY[®] 822 is an alkaline cyanide electrolyte for the deposition of an alloy of tin and zinc in barrel or rack operations.

The alloy composition averages 80% Sn and 20% Zn, although other Sn/Zn alloy ratios can also be deposited by varying the operating parameters.

The process offers outstanding properties such as excellent soldering and welding abilities, high conductivity (< 5 mOhm), low porosity, and reliable protection on iron, iron alloys, and light metals such as aluminum. It offers excellent corrosion resistance (500 hours salt spray test) and meets the highest environmental standards: chrome VI-free, RoHS and REACH compliant.

The matt gray, non-reflective surface is particularly suitable for aerospace, automotive and electrical engineering applications and offers a fully-fledged, environmentally friendly alternative to cadmium for demanding conditions.

Advantages

- Very good metal distribution
- Excellent corrosion protection of light metals, iron and iron alloys
- Very good soldering and welding properties
- Low porosity
- Suitable for rack and barrel operation

Applications

- Fastening elements such as clamps, screws and washers
- Hydraulic components and connecting elements
- Fuel and brake oil lines
- Aircraft and automobile construction
- Housing parts
- Solder alloys
- Electrotechnical components
- Cadmium substitute

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TIN-ZINC-ELECTROLYTE

TECHNICAL SPECIFICATIONS

Electrolyte characteristics	
Electrolyte type	Alkaline-cyanide
Metal content	22 g/l Sn 2.4 g/l Zn
KCN content	30 g/l
KOH content	8 g/l or 15 g/l
pH value	> 13
Operating temperature	60 °C
Current density range	
Rack	1.5 A/dm ²
Barrel	1.0 A/dm ²
Plating speed	0.25 µm/min at 1.5 A/dm ² 0.17 µm/min at 1.0 A/dm ²

Coating characteristics	
Coating	Tin-zinc
Alloy composition	70 - 80 % Sn 30 - 20 % Zn
Colour of deposit	White
Hardness of deposit	approx. 50 HV
Density of the coating	7.25 g/cm ³

YOUR CONTACT

Do you have a specific question or would you like a no-obligation quote calculation?
Our specialist will be happy to help you with any technical questions you might have.



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