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DIALLOY[®] 824

TIN-ZINC-ELECTROLYTE



Environmentally friendly, cyanide-free SnZn process as a reliable alternative to cadmium for extreme conditions

DIALLOY[®] 824 represents the latest development in modern, cyanide-free SnZn coating technology. The alkaline process meets the industry's increasing demands for safe, sustainable, and high-performance manufacturing processes and is suitable for barrel and rack operation.

The silk-matt, silver-colored coating was specially developed for maximum loads and is a fully-fledged replacement for cadmium, even under extreme operating conditions.

Thanks to its non-reflective surface, the coating is particularly suitable for applications in aerospace, automotive, and electrical engineering. DIALLOY[®] 824 combines reliable performance with environmental compatibility without compromising on safety, quality, or durability.

Advantages

- Cyanide-free electrolyte for a safe and modern coating process
- Excellent soldering and welding properties
- High electrical conductivity (< 5 mΩ)
- Low porosity for increased layer resistance
- Effective protection for iron, iron alloys, and light metals such as aluminum
- Excellent corrosion resistance, confirmed by 500-hour salt spray test
- Chromium VI-free, RoHS and REACH compliant

Applications

- Fastening elements (screws, clamps, washers)
- Hydraulic and connecting elements
- Brake oil and fuel lines
- Components in aerospace and automotive engineering
- Housing and structural components
- Solder alloys
- Electrical engineering components
- General cadmium replacement for demanding applications

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TECHNICAL SPECIFICATIONS

Electrolyte characteristics	
Electrolyte type	Alkaline cyanide-free
Metal content	24 g/l Sn, 1.2 g/l or 1.6 g/l Zn
pH value	12.1 (60 °C)
Operating temperature	60 °C
Current density range	
Rack	1.5 A/dm ²
Barrel	0.5 - 0.8 A/dm ²
Plating speed	Approx. 0.28 µm/min at 1.5 A/dm ²

Coating characteristics	
Coating	Tin/zinc
Purity	70-80 % Sn 30-20 % Zn (adjustable via operating conditions)
Colour of deposit	White
Hardness of deposit	Approx. 50 HV
Density of the coating	Approx. 7.2 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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