

Protolux® 3000

Thiourea-free alkaline zinc electrolyte



General Metal Finishing

Corrosion resistant coatings

atotech.com



Sustainable bright alkaline zinc coatings

A non-hazardous and sustainable process

Protolux® 3000 is an environmentally friendly process, which does not contain lead, cadmium, ETDA or boric acid. With focus on health and safety in work environments, carcinogenic substances were removed from the formula and replaced with safer alternatives.

High brightness level and an even layer thickness distribution

Protolux® 3000 is a tried and tested alkaline zinc electrolytic process. What singles Protolux® 3000 out as an outstanding electrolyte is its high brightness level and the homogenous distribution of its layer thickness. Even after heat treatment, Protolux® 3000 yields excellent color stability and preserves a high level of brightness, resulting in black surfaces that seem to shine from within.

Features and benefits

- Rack and barrel applications
- Extremely stable brightness level
- Stable appearance after heat treatment
- Excellent thickness distribution – also on inner threaded parts
- High carbonate resistance
- Aldehyde-free
- Thiourea-free
- Lower chemical and water consumption

Exceeding market standards while providing economic advantages for customers



Image 1:
Protolux® 3000 +
Tridur® Zn H1 +
Tridur® Finish 300

Image 2:
Protolux® 3000 + EcoTri® ONE
+ Sealer 350 WL8

Image 3:
Protolux® 3000 + EcoTri® NF +
Corrosil® GG 400

The most competitive alkaline zinc electrolytic process on the market

Due to its carbonate resistance, the Protolux® 3000 plating process remains highly efficient throughout the bath life. At the same time, its excellent throwing power results in a consistently high plating speed. In addition, the solution's additive stability means a steady dosage level throughout the bath life, which decreases the need for maintenance, as the additives do not oil out. Protolux® 3000 components are highly concentrated solutions meant to be deployed in low doses, thus reducing chemical consumption and providing cost savings.

Consumption data at customer production sites for rack plating

10.000 AH	Customer 1 in Europe	Customer 2 in Europe	Customer 3 in Europe	Customer 1 in South America
Protolux® 3000 Make-up S: [kg]	0.7	0.9	0.8	0.6
Protolux® 3000 Brightener S: [kg]	0.45	0.46	0.5	0.32
Protolux® 3000 Additive: [kg]	0.2	0.46	0.6	0.2
Sum:	1.35	1.82	1.9	1.12

Consumption data at customer production sites for barrel plating

10.000 AH	Customer 1 in Asia	Customer 1 in Europe	Customer 2 in Europe	Customer 3 in Europe	Customer 1 in South America
Protolux® 3000 Make-up S: [kg]	1.35	0.9	0.85	0.7	0.7
Protolux® 3000 Brightener S: [kg]	0.25	0.6	0.55	0.7	0.4
Protolux® 3000 Additive: [kg]	1.0	0.2	0.2	0.5	0.3
Sum:	2.6	1.7	1.6	1.9	1.4

