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# UMICORE COPPER 838

## COPPER ELECTROLYTE



### Cyanide-free alkaline copper electrolyte for barrel applications

Umicore Copper 838 is a cyanide-free alkaline copper electrolyte. By dispensing with highly toxic cyanide in the electrolyte, the protection and safety of plant operators and the environment is ensured to a large extent.

The deposited coatings are fine-grained, ductile and appear silky matt to bright over a wide current density range, depending on the brightness of the brightener.

Umicore Copper 838 is used in barrel plating. In addition to the common metallic base materials such as non-ferrous metals, iron or steel, zinc die-cast alloys can also be directly copper-plated with appropriately adapted pretreatment.

Umicore Copper 838 Brightener 1 prevents pores and has a slight brightening effect. Furthermore, the addition extends the gloss range and improves the fine grain size.



### Advantages

- Cyanide-free, environmentally friendly electrolyte
- Lower hazard potential and health risk for system operators
- Fine-grained, ductile copper coatings
- Silk matt to bright coatings over a wide current density range
- Direct copper plating of all common metallic base materials
- Direct copper plating of zinc die-cast alloys with adapted pretreatment

### Applications

- Copper plating of technical and decorative parts

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### TECHNICAL SPECIFICATIONS

Electrolyte characteristics		Coating characteristics	
Electrolyte type	alkaline	Coating	Copper
Metal content	10 (8 - 12) g/l Cu	Hardness of the coating	200 HV 0.1
pH value	8.0 (7.8 - 8.2)		
Operating temperature	25 (20 - 40) °C		
Current density range	0.5 (0.25 - 0.75) A/dm <sup>2</sup>		
Plating speed	approx. 0.1 µm/min at 0.5 A/dm <sup>2</sup>		

### 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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