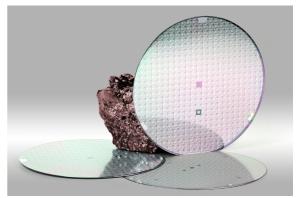


## Cu(II)Oxide High Purity Metal Salt

# Lower cost of ownership for Cu replenishment

Umicore copper oxide high purity metal oxide powder are developed, manufactured and quality tested in accordance with the demanding requirements of the semiconductor advanced packaging industry. In combination with ancosys DMR® concept (Direct Metal Replenishment) clean room usage is possible enabling lower cost of ownership for Cu replenishment along with a boost in performance of the electrolyte through higher Cu concentrations.

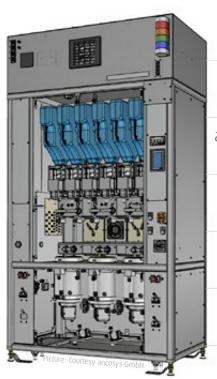


#### Advantages

- No VMS Needed
  - H2SO4 concentration remaining consistent. Stable electrolyte volume, feed and bleed not needed
  - Several grades (4N, Packaging)
  - o Full traceability, only one source for Cu
- Cost Efficiency
  - Reduction tool down time, supporting maintenance-free plating chambers
  - 50% lower cost per kg Cu compared with VMS
  - 15% higher speed through higher Cu2+ (60g/l i/o 50g/l)

#### **Applications**

Semiconductors



	CuO PG	CuO HG	CuO 4N
Application	RDL and panel level substrates	Panel substrates	Fine line RDL and Pillar
Purity	99,9 %	99,9%	99,99%
auto-dosing compatibility <b>DMR</b>	✓	-	✓
Dissolution speed	*	*	**
High Speed Plating	✓	<b>√</b>	✓
Clean room packed / compatibility	✓	-	✓

Umicore Umicore

### Your contact person



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