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RODIO WO2S (Rh 2 g/l)

Rodio WO2S bath is intended for the deposition of brilliant-white, very light, bright coatings. The usual coating thickness for these applications is 0.1-0.3 µm.

1. Bath characteristics

Rhodium	2.0 g/l
pH value	<1
Temperature	40°C
Current density	1 A/dm ²
Deposition speed	approx. 0.025 µm/min

2. Coating characteristics

Coating	rhodium
Colour	brilliant white
Hardness	800-900 HV
Maximum coating thickness	0.3 µm

3. Product Specifications (Code PF 565)

Rh content	2.0 g/l
Free H ₂ SO ₄	32-34 g/l

4. Bath Makeup (1000 ml)

4.1. *Attention CORROSIVE! Read Safety Data Sheet before use.*

4.2. The solution is ready for use.

5. Operating conditions

- 5.1. *Rhodium content:* 2g/l (1.6-2.4 g/l)
- 5.2. *H₂SO₄ concentration:* 32-34 g/l (rising with the use of bath)
- 5.3. *Operating temperature:* 40°C
- 5.4. *pH value* <1 , no control required
- 5.5. *Bath agitation :* recommended (bath agitation by air agitation is not suitable).
- 5.6. *Current density:* approx 0.5-2A/dm², preferably 1A/dm².
- 5.7. *Voltage:* 3-4 volts.

If the surface of the parts is not known and thus the required current cannot be calculated, work with a bath voltage which is just sufficient for the minimal evolution of hydrogen bubbles.


- 5.8. *Deposition rate:* approx. 3.2 mg/A min at 40°C.

At room temperature deposition rate, efficiency and deposition speed will be reduced to approx. half the stated values.

- 5.9. *Deposition speed:* approx. 0.025 µm/min at a current density of 1 A/dm² and 40°C.

6. Bath monitoring and correction

- 6.1. Keep the bath clean
- 6.2. Cover when not in use and take the platinized titanium anodes out of the bath
- 6.3. Store in a closed bottle when not in use for a longer period of time
- 6.4. Avoid metallic contaminants (particularly silver) and drag-in of cyanide !
- 6.5. Continuous filtration through activated carbon is not allowed because this will remove an essential bath component.
- 6.6. Determine Rh and H₂SO₄ content: if the concentration of rhodium is less than 1.6 g/l add the required amount of WO2S replenisher solution (Code PF 566).
- 6.7. In case the bath does not functions satisfactory contact our contact center (0800 878 202 / service.client@cookson-clal.com)

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7. Process diagram

