

黒色スズニッケル合金めっき液

# トップファルベSN-KT

Black Color Tin-nickel Alloy Plating Solution

## TOP FARBE SN-KT

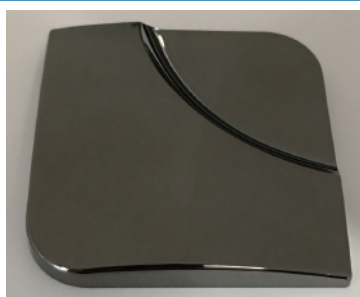
- 硫黄、コバルトフリーの黒色スズニッケル合金めっき液
- 液攪拌の影響を受けにくく、均一な黒色外観が得られる
- 幅広い電流密度領域で黒色外観が得られる

- Solution for sulfur-, cobalt-free black color tin-nickel alloy plating
- Reduce the impact on appearance by bath agitation
- Uniform black color tones can be obtained in wide current density areas

### めっき外観

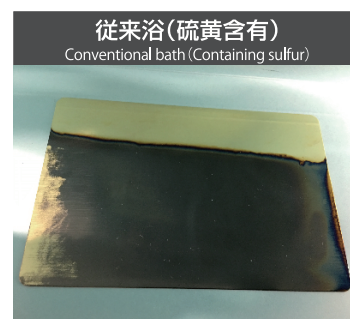
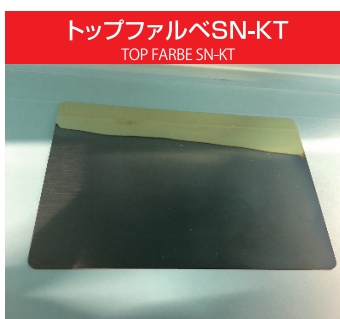
Plated appearance

L\* 56.07 a\* 1.27 b\* 3.51



### 均一な黒色外観

Uniform black color

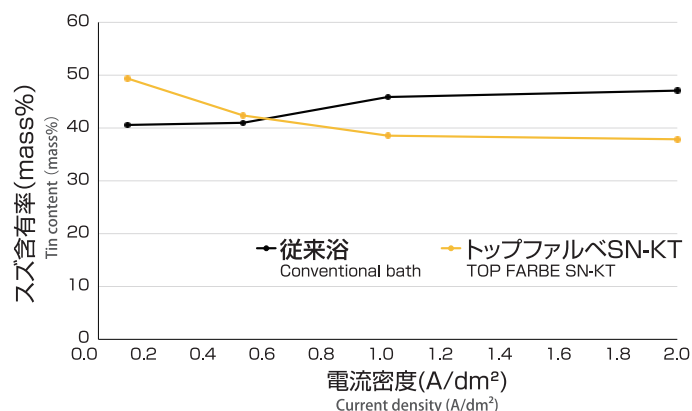


空気攪拌実施(0.5 L/min)  
Air agitation amount (0.5 L/min)

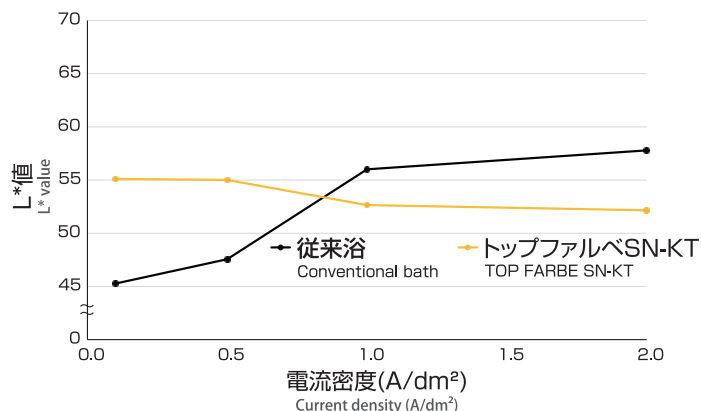
### 幅広い電流密度領域に対応

Applicable to wide current density areas

電流密度とめっき皮膜組成の関係  
Relationship of tin content and current density



電流密度と黒色外観(L\*値)の関係  
Relationship of black tones (L\* value) and current density



### 浴組成と作業条件

Bath composition & Working condition

トップファルベSN-KT-S(スズ濃度) TOP FARBE SN-KT-S (Tin concentration)	7.2 g/L (3.8 g/L)
トップファルベSN-KTコンク(ニッケル濃度) TOP FARBE SN-KT CONC (Nickel concentration)	750 ml/L (17.8 g/L)

pH	8.5(8.0 to 9.0)
電流密度 Current density	0.5 A/dm <sup>2</sup> (0.1 to 2.0 A/dm <sup>2</sup> )
浴温 Bath temperature	35℃
陽極 Anode	不溶性陽極(カーボン系電極) Insoluble anode (Carbon-type electrode)
攪拌 Agitation	ろ過による緩やかな液流動 Mild bath circulation by filtration
排気装置 Air exhauster	局所排気装置 Local exhaust