

電気ニッケル-PTFE分散めっき用添加剤

トップディスパーNTF

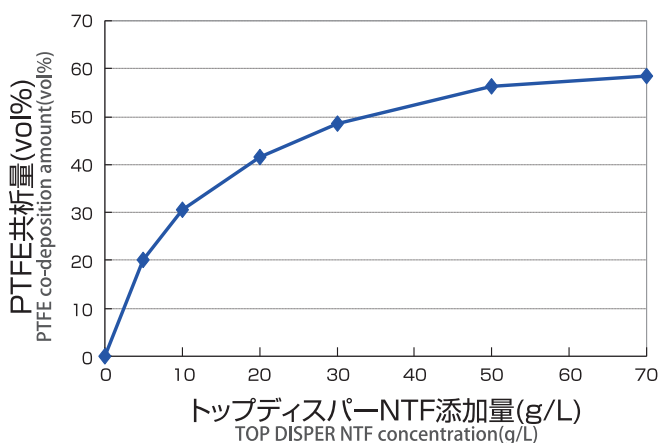
Additive for Electro-nickel and PTFE Composite Plating

TOP DISPER NTF

- 添加量でPTFE共析量が調整可能
 - PTFE共析量が電流密度の影響を受けない
 - PTFE微粒子が均一にめっき皮膜へ共析する
- Can control PTFE content by changing additive concentration
 • PTFE co-deposition amount is not affected by current density
 • PTFE micro-particles can co-deposit into plating film uniformly

添加量で共析量を調整できる

Can control co-deposition amount by changing additive concentration

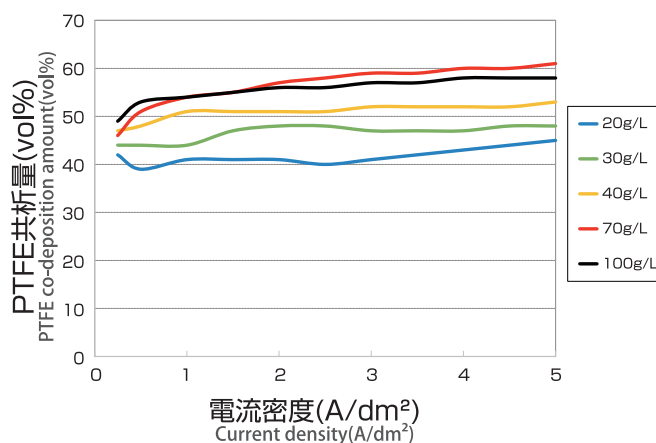


トップディスパーNTF添加量とPTFE共析量の関係 (電流密度: 2A/dm²)

Relationship of PTFE co-deposition amount and TOP DISPER NTF concentration (Current density: 2A/dm²)

共析量が電流密度の影響を受けない

PTFE co-deposition amount is not affected by current density



電流密度とPTFE共析量の関係 (膜厚: 5μm)

Relationship of current density and PTFE co-deposition amount (Thickness: 5 μm)

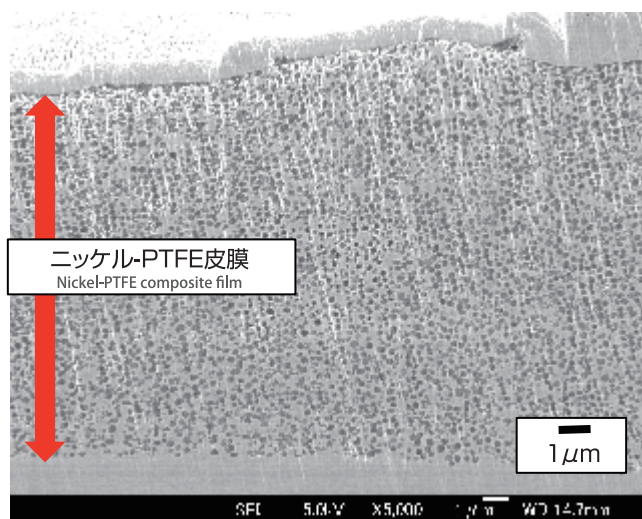
浴組成

Bath composition

硫酸ニッケル Nickel sulfate	280 g/L
塩化ニッケル Nickel chloride	45 g/L
ホウ酸 Boric acid	40 g/L
トップディスパーNTF TOP DISPER NTF	5 ~ 70 g/L to
浴温 Bath temperature	55 ~ 65°C to
電流密度 Current density	0.5 ~ 5 A/dm ² to
陽極 Anode	ニッケル板 Nickel plate

均一な共析

Can co-deposit uniformly



断面SEM像 (観察倍率: ×5000)
Cross-sectional SEM image (Magnification: ×5000)