

接続信頼性に優れる無電解銅めっきプロセス

Electroless Copper Plating Process for Higher Connecting Reliability

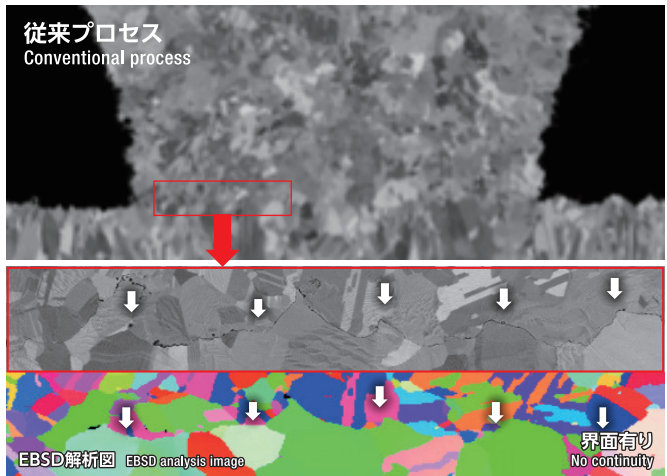
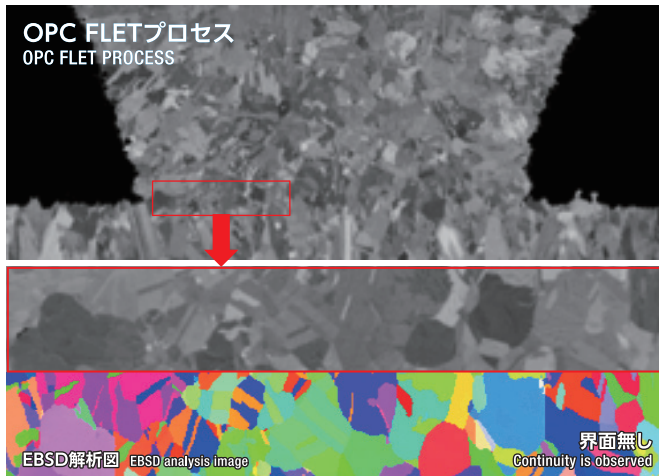
OPC FLETプロセス

OPC FLET PROCESS

- **ビア底の結晶連続性が得られ、接続信頼性に優れる**
Can obtain crystal continuity at via-hole bottom, excellent in connecting reliability
- **低粗度材料でも高いピール強度が得られる**
High peel strength to low Ra material
- **純度の高い銅皮膜が得られ、低膜厚でも低いシート抵抗値を示す**
Can obtain high-purity copper films, show low sheet resistance by thin thickness
- **低膜厚で優れたビア・スルーホール内のめっき析出性が得られる**
Can realize high via-, through-hole plating ability by thin thickness
- **優れた回路形成性を示し、L/S=1/1 μ mが実現できる**
Excellent in pattern forming performance, realize L/S=1/1 μ m

優れた結晶連続性

Excellent in crystal continuity



低粗度材料でも高いピール強度

High peel strength to low Ra material

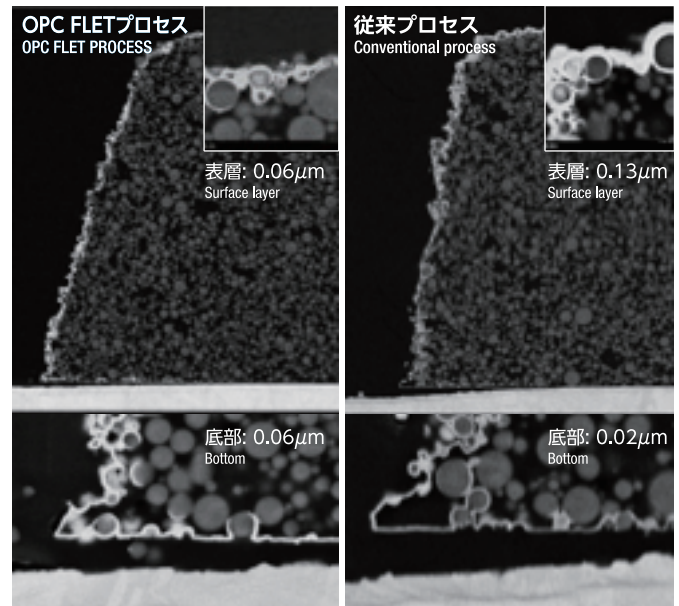
低膜厚でも低いシート抵抗値

Low sheet resistance can be realized by thin thickness

	OPC FLETプロセス OPC FLET PROCESS	従来プロセス Conventional process
樹脂上膜厚 Film thickness on resin	0.19 μ m	0.19 μ m
ニッケル共析量 Nickel content in deposit	0%	1.5%
シート抵抗値 Sheet resistance value	0.18 Ω /□	0.51 Ω /□
ピール強度 ABF GL (Ra: 12nm)	5.5N/cm	3.5N/cm

低膜厚で優れたビアへの付きまわり性

Great covering power by thin thickness into via holes



100%

15%

スローイングパワー
Throwing power

L/S=1/1 μ mの実現

Realization of L/S=1/1 μ m

