

耐クラック性・はんだ接合性に優れた無電解ニッケルめっき液

Electroless Nickel Plating Solution with Strong Crack Resistance and Great Solder Joint Performance

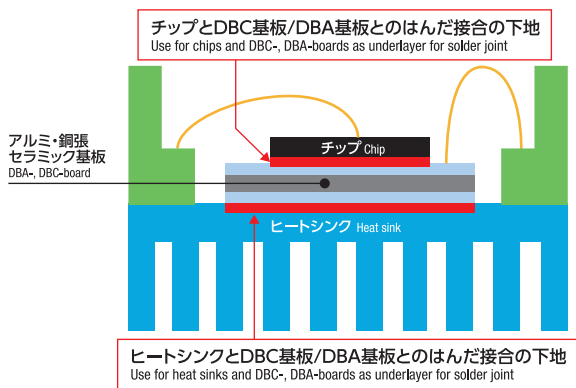
ICPニコロンLPW-LF

ICP NICORON LPW-LF

- リン含有率は3~4wt%で硫黄および鉛を含有しない
Phosphorus content: 3 to 4% by weight, not containing sulfur and lead
- 熱処理後においてもクラックが発生しにくい
Reduce cracks after heat treatment
- はんだ接合においてリン濃化層が形成しにくく、はんだ接合性に優れる
Great solder joint performance, can prevent the occurrence of phosphorus rich layers

用途例

Usage



皮膜成分

Film component

リンが約3wt%と低く、皮膜に硫黄を含まない
Phosphorus content: approx. 3% by weight, sulfur-free film

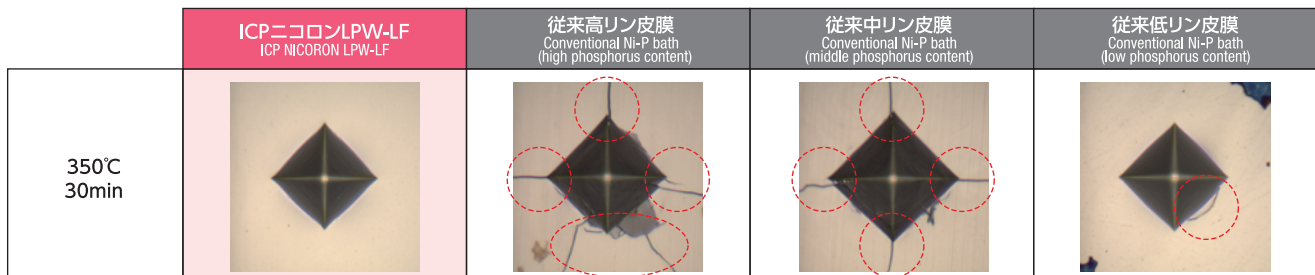
	皮膜成分 Film component	
	リン含有率(wt%) Phosphorus content	硫黄含有率(wt%) Sulfur content
ICPニコロンLPW-LF ICP NICORON LPW-LF	3.0	検出限界以下 Not detected
従来高リン皮膜 Conventional Ni-P bath (high phosphorus content)	10.4	検出限界以下 Not detected
従来中リン皮膜 Conventional Ni-P bath (middle phosphorus content)	7.2	0.0041
従来低リン皮膜 Conventional Ni-P bath (low phosphorus content)	2.0	0.019

リン含有率: EDS分析
Phosphorus content: EDS analysis

硫黄含有率: CS分析
Sulfur content: CS analysis

優れた耐クラック性

Excellent in crack resistance

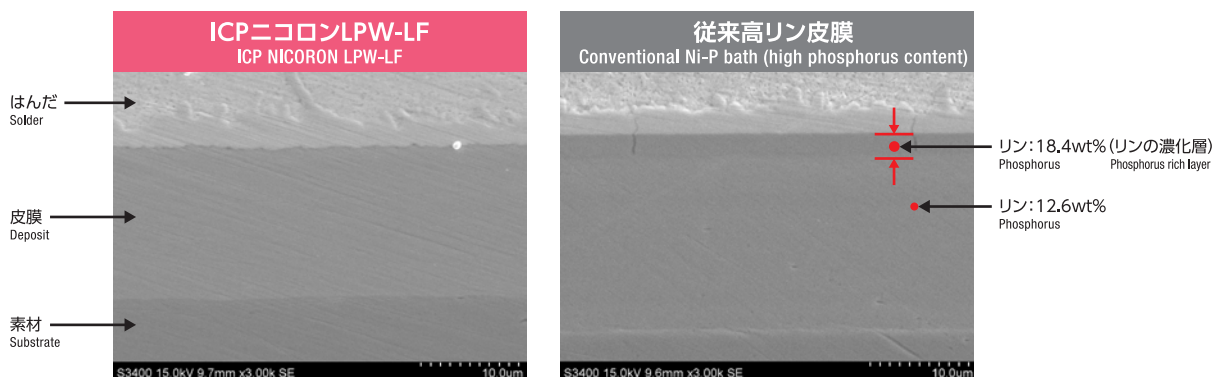


熱処理後においてもクラックが発生しない
Prevent cracks after heat treatment

(マイクロピッカース硬さ測定荷重: 14.7N)
Vickers hardness test (load: 14.7N)

優れたはんだ接合性

Excellent in solder joint performance



(Sn-3.0 Ag-0.5 Cuはんだ浸漬 200°C 300時間 加熱放置後の断面SEM像)
Cross-sectional SEM image (Test condition: dip into Sn-3.0 Ag-0.5 Cu solder, then conduct heat-treatment at 200°C for 300h)

リン濃化層の形成を抑制
Phosphorus rich layer will not occur