

# THP<sup>®</sup>-100 Series

## 熱硬化型穴埋めインキ

### Thermal Curable Permanent Hole-Plugging Materials

#### 特長 Features

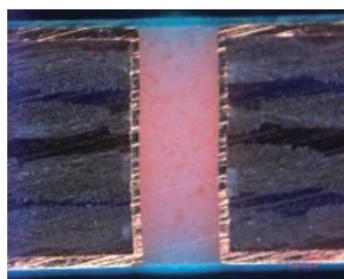
#### THP<sup>®</sup>-100 DXL2

- 高信頼性 (ボイド/クラック・フリー)  
High reliability (Void and crack free)
- 良好な形状保持性・研磨性  
Shape stability & Easy grinding
- 外層SR仕様／蓋めつき仕様OK  
Suitable for outer layer / cap-plating application
- ロング・ライフ (=在庫管理容易化)  
Long Shelf Life (=Easy stock control)
- ハロゲンフリー  
Halogen Free (JPCA-ES01)

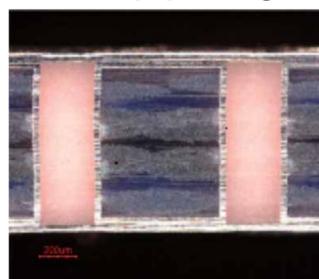
#### THP<sup>®</sup>-100 DX3

- 高信頼性 (ボイド/クラック・フリー)  
High reliability (Void and crack free)
- 低CTE  
Low CTE
- 外層SR仕様／蓋めつき仕様OK  
Suitable for outer layer / cap-plating application
- 高アスペクト比の基材に使用可能  
Applicable for substrates with high aspect ratio
- 小径PTH対応  
Applicable for small diameter PTH
- ハロゲンフリー  
Halogen Free (JPCA-ES01)

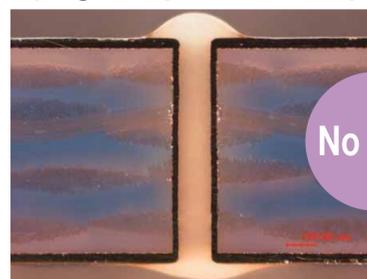
THP<sup>®</sup>-100 DXL2  
+Solder resist



THP<sup>®</sup>-100 DXL2  
+Cap plating



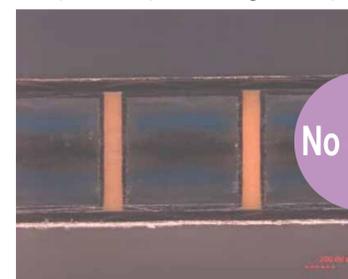
THP<sup>®</sup>-100DX3  
(High aspect ratio:8)



No void

Board thickness :  
0.8mm PTH:  $\phi$  0.1mm

THP<sup>®</sup>-100DX3  
(C-24/85/85  $\Rightarrow$  air reflow  
(270°C)  $\times$  5 cycles)



No crack

Pretreatment: Chemical treatment: 1  $\mu$ m  
Test panel: 0.8mmt (PTH:  $\phi$  0.15mm)

#### 特性 Properties

Test Items	THP <sup>®</sup> -100 DXL2	THP <sup>®</sup> -100DX3	Remarks/Test Conditions
色調 Color	White		
有効期限 Shelf life	150 days		Under 10°C
ガラス転移温度 Tg	146°C	155°C	TMA Method
線膨張係数 CTE	43ppm	33ppm	Below Tg
弾性率 Young's modulus	4400MPa	4744MPa	Tensile method
破壊強度 Tensile strength	51.0 MPa	54.1MPa	Tensile method
破壊伸び率 Elongation	2.00%	1.98%	Tensile method
吸水率 Water absorption	0.70%	0.70%	DI water, 23°C, 24hrs
ピール強度 Peel Strength	Above 6N/cm	Above 6N/cm	Vertical direction