

THP-100 Series

熱硬化型穴埋めインキ

Thermal Curable Permanent Hole-Plugging Materials

特徴 Features

THP-100DX7 & DX9

- ◇高 Tg / 低 CTE High Tg / Low CTE
- ◇高信頼性：-65℃⇔150℃、1000Cycle クラックなし
No crack after -65 ⇔ 150deg.C x 1000 cycles
- ◇低硬化収縮 Extra-low shrinkage after curing

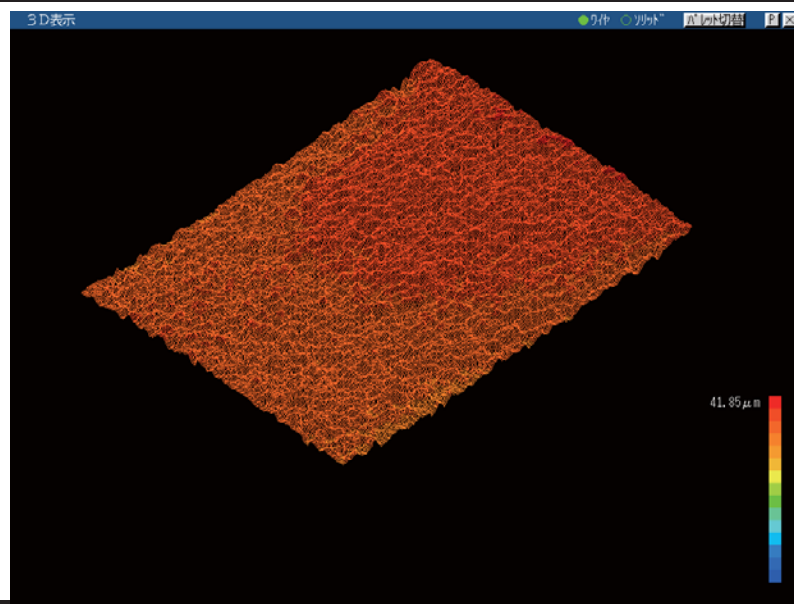
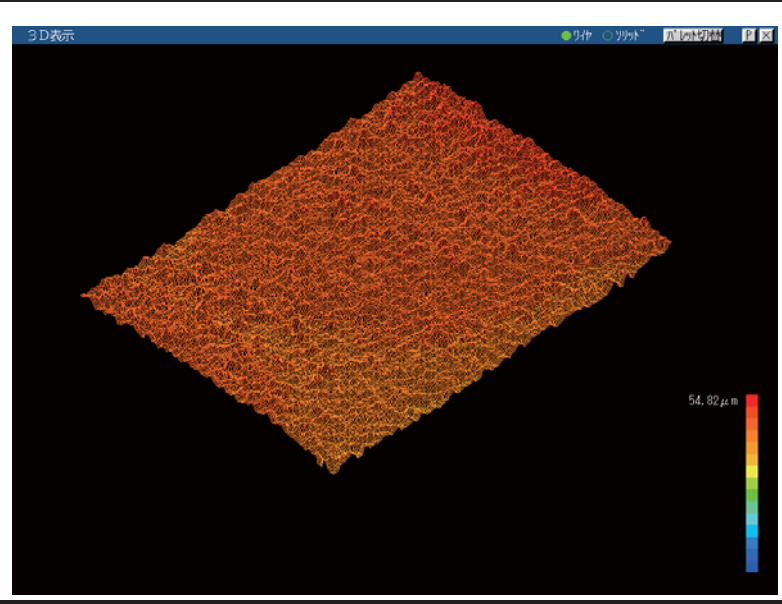
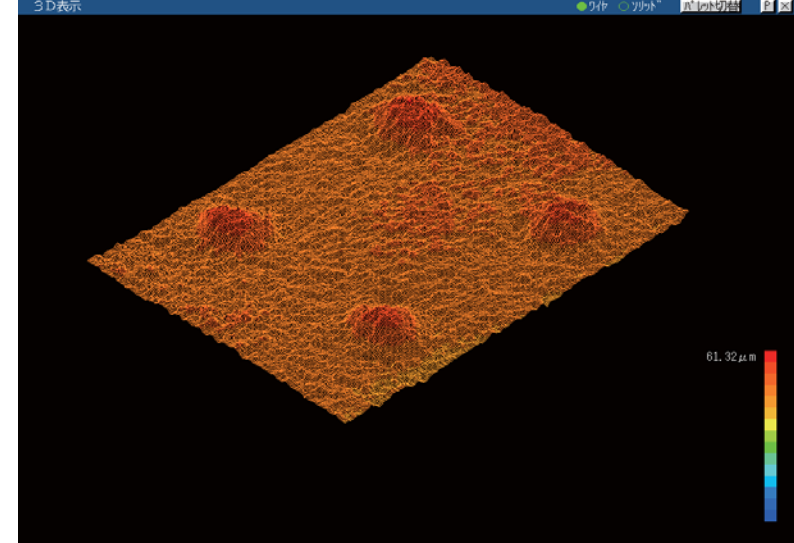
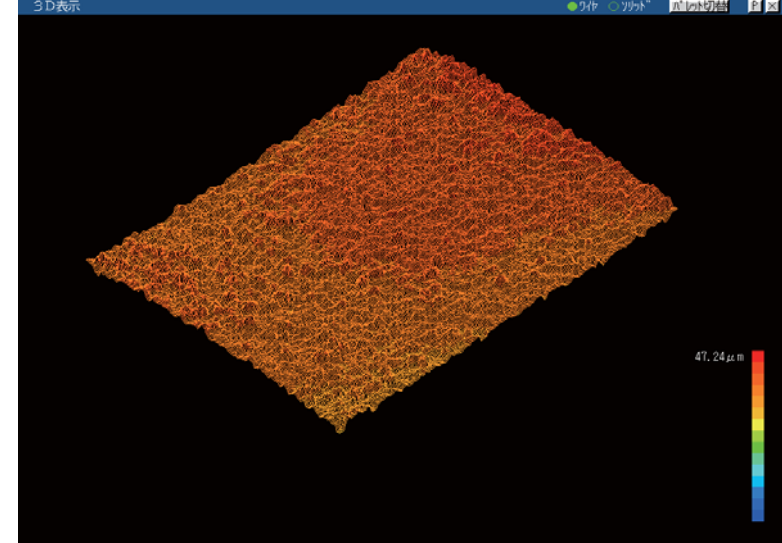
THP-100Z2 シリーズ

- ◇保存安定性良好：有効期限 180 日（10℃以下保管）
Very long shelf life and quality stability for 180days (Stored below 10deg.C)
- ◇短時間硬化：150℃／15 分 Quicker curing time
- ◇高耐熱性：288℃／10sec／5cycle クラックなし
Higher thermal resistance. No crack at 288deg.C 10sec. x 5 cycles.
- ◇小径 TH 基板 への印刷性良好
Excellent plugging ability to small diameter holes

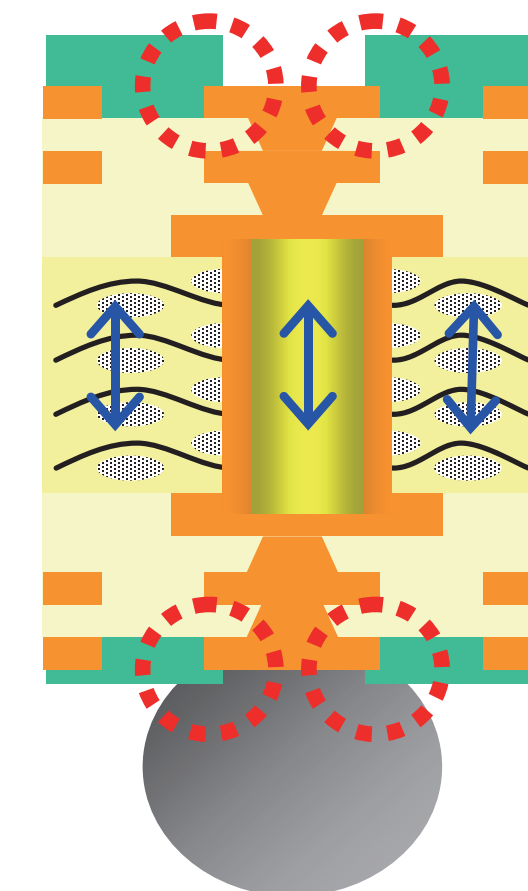
特性 Properties

	従来品 Conventional product	THP-100DX7	THP-100DX9	THP-100 Z2	Test Condition
粘度 (dPa・s)	450±50	450±50	500±75	350±50	コーンプレート型粘度計 Cone plate type viscometer
ガラス転移温度(℃) Tg	150-160	165-175	175-185	150-160	TMA (Pulling mode) X-Y 方向 X-Y direction
線膨張係数(ppm) CTE ($\alpha 1 / \alpha 2$)	30-35 / 100-110	20-25 / 55-65	15-20 / 50-60	40-45 / 110-120	
ヤング率(Gpa) Young's modulus	4.5-5.0	5.0-6.0	8.0-9.0	4.0-4.5	
破断点強度(MPa) Tensile strength	50-55	60-70	60-70	45-55	引っ張り法 Pull-mode (室温 At room temperature)
伸び率(%) Elongation	2.0-2.5	1.5-2.5	1.5-2.0	1.5-2.0	
吸水率(%) Water absorption	< 1.0	< 1.0	< 1.0	< 1.0	D-24/23, 塗膜厚み 100umt Resin thickness: 100um
ピール強度(N/m) Peel strength	> 5.0	> 5.0	> 5.0	> 6.0	引っ張り方向 90° Pull-mode for vertical direction at 90°

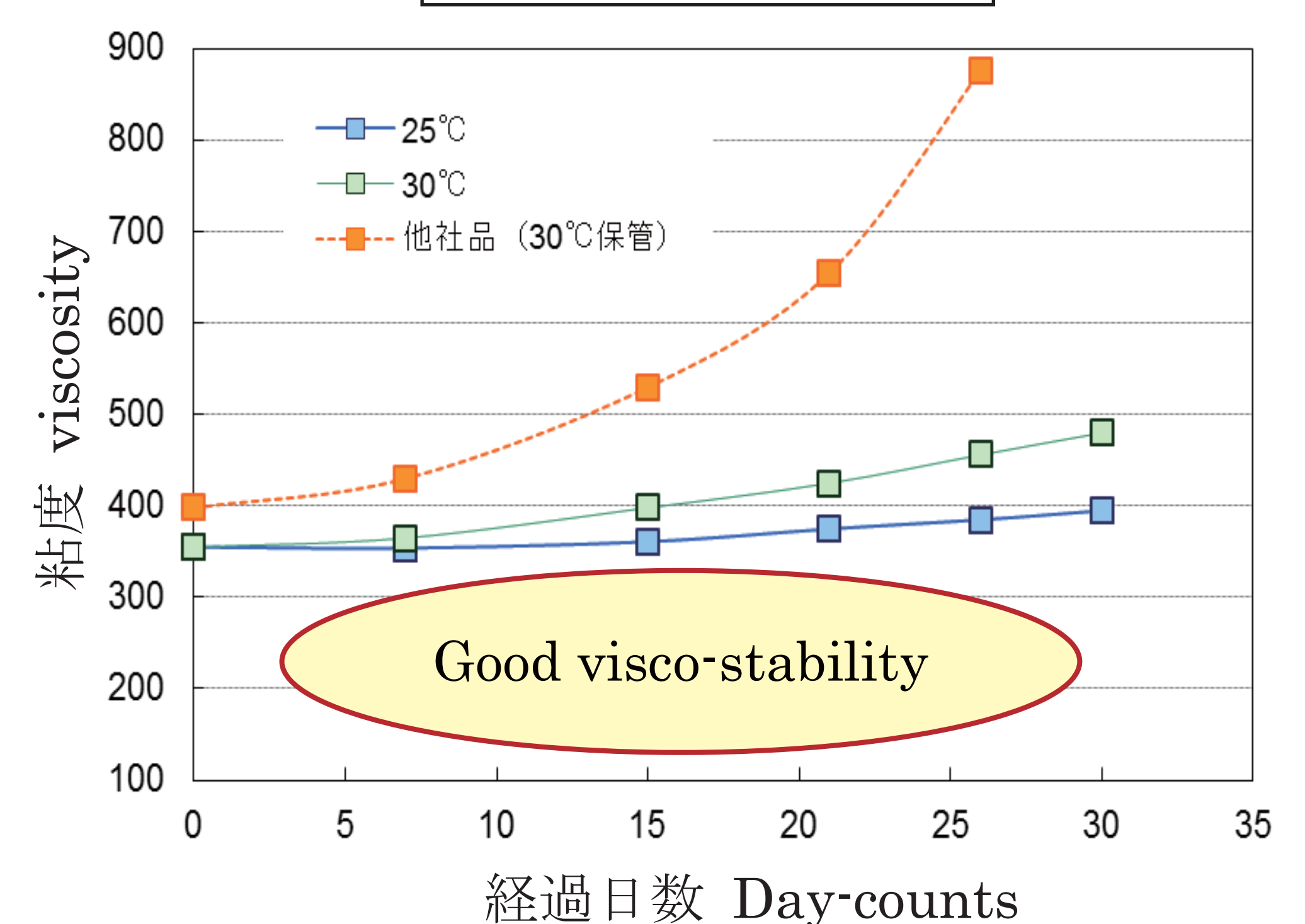
THP-100 DX7

	従来品 Conventional product	THP-100 DX7
Before Reflow		
After L2a Reflow		

- ◇ Core
T=0.4mmPTH=0.25mm
- ◇ Treatment
L2a (C-120/60/60)+
Reflow(270℃/5cycles)
※基板表面実温度



THP-100 Z2

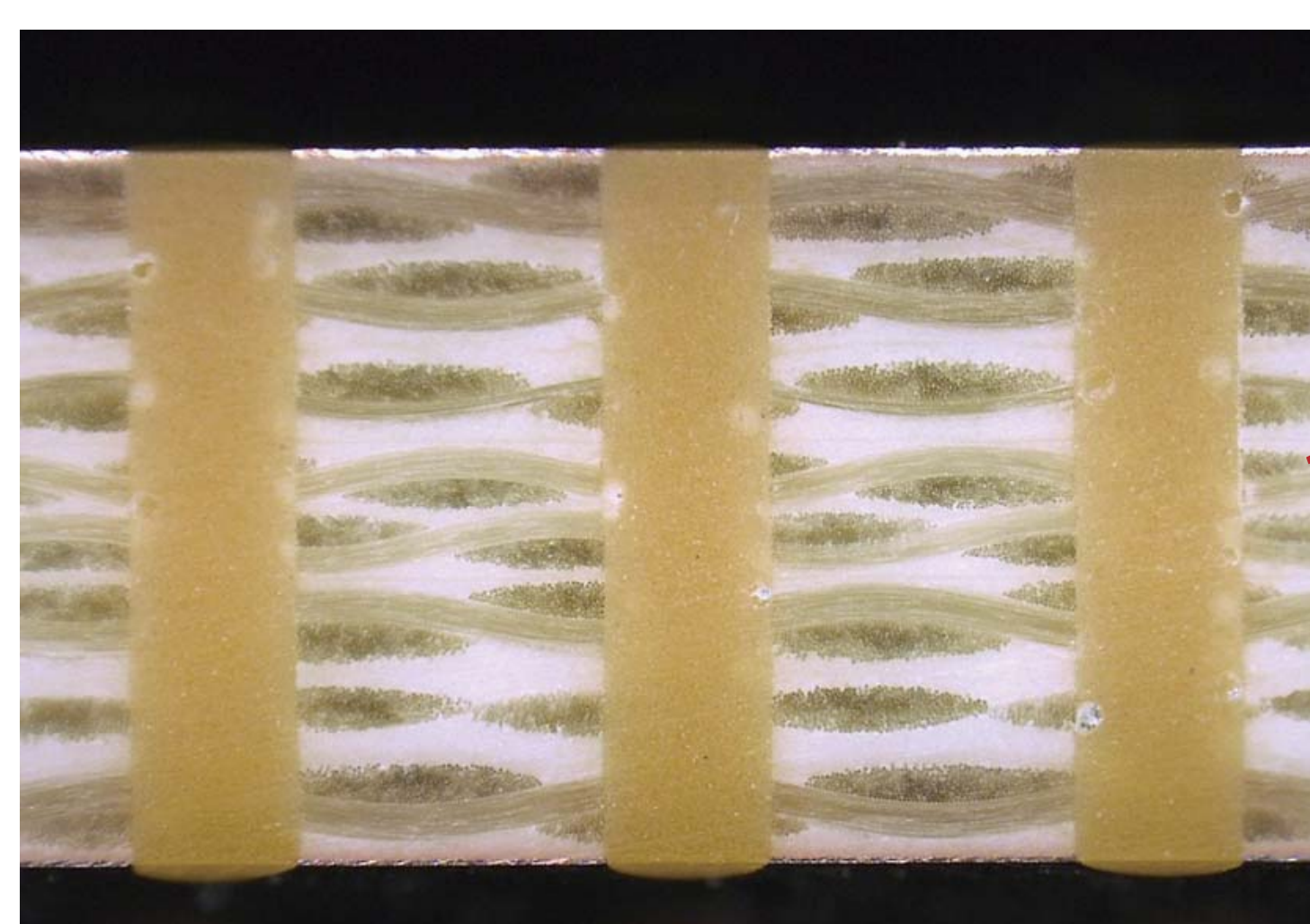


低温硬化タイプ Low-temperature curing type

従来品 Conventional product

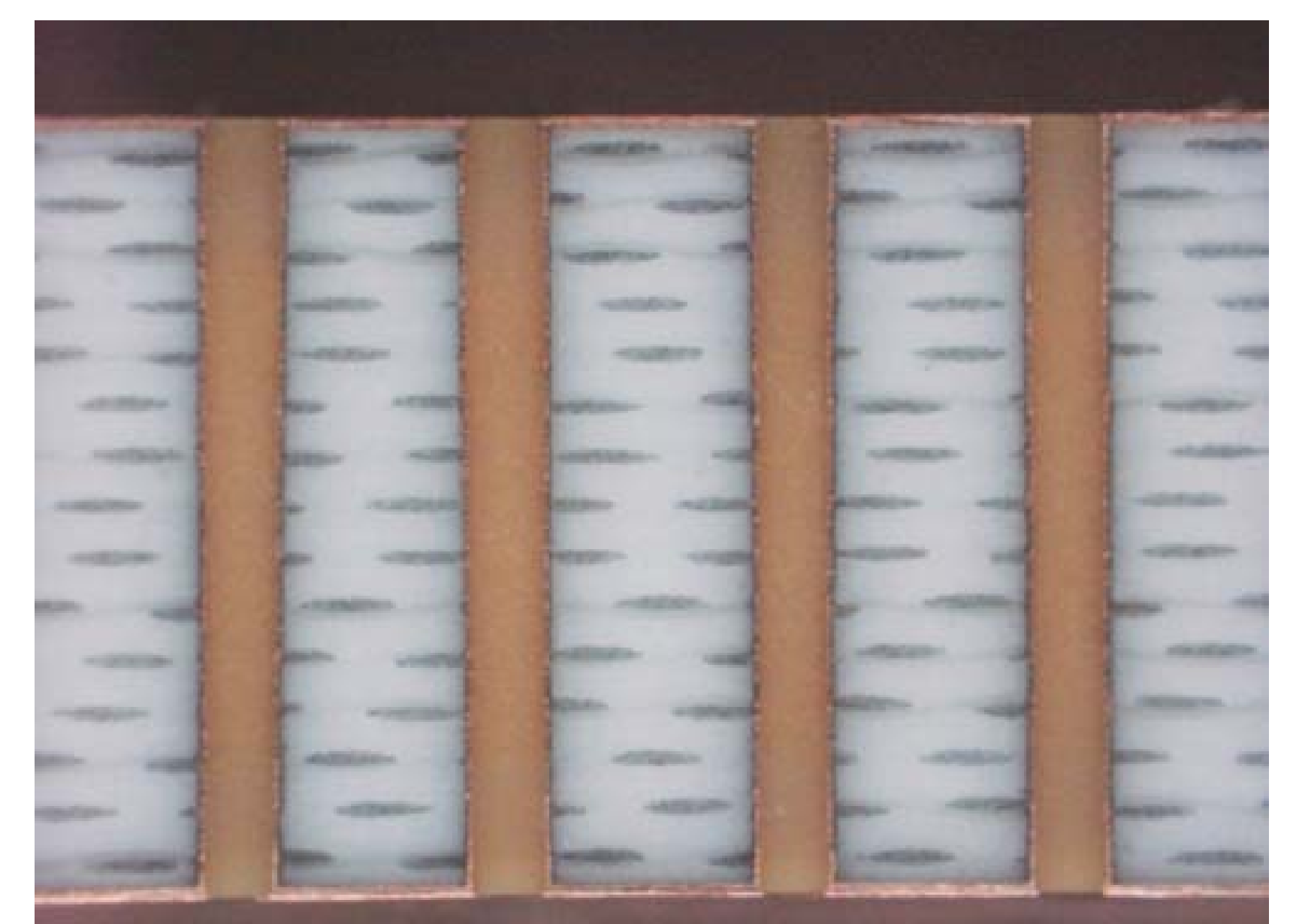


新製品 New product



アウトガスによる
ボイドの発生を低減

高アスペクト比基板



(T=3.5mm/PTH=0.20mm)