

# Performance of ULF coated drill



ULFコートドリル加工事例

## $\phi 0.1$ Micro-hole drilling performance

Work material: LAZ-4785TH-G (halogen-free material , Ultra Low-CTE)  
t0.1(Double sided 3/3  $\mu$  mCu) **6 panels / stack**

Entry sheet : LE900

N:350,000 min<sup>-1</sup> F:3.5 m/min f:10  $\mu$  m/rev

Set life:5,000 hits x 3

Work material : SUMITOMO BAKELITE CO.,LTD.

Entry sheet : MITSUBISHI GAS CHEMICAL COMPANY, INC.



# ULF $\phi 0.1$

application: FBGA / BGA / device substrate etc...

## ULFコートドリル $\phi 0.1\text{mm}$ 加工事例

用途: 半導体パッケージ、各種デバイス用基板 等



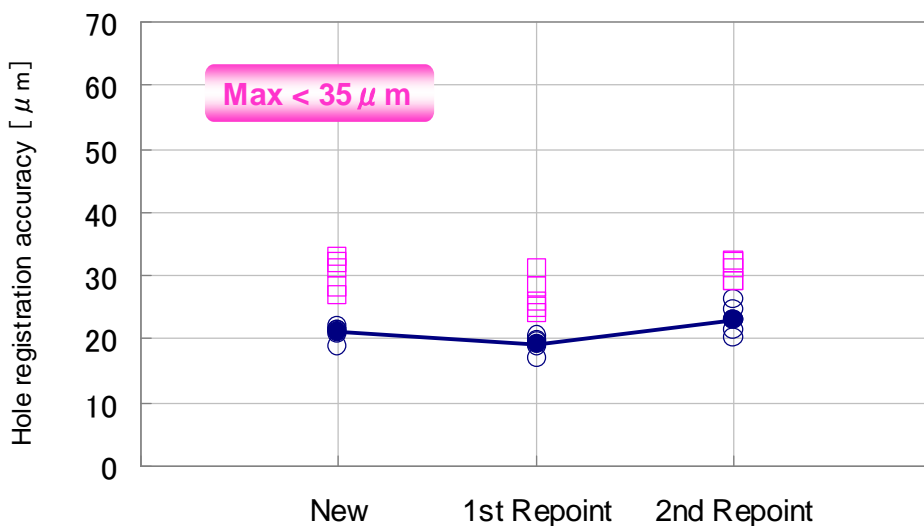
### Drilling condition [ 加工条件 ]

Work material : LAZ-4785TH-G t0.1 (Double sided  $3/3\ \mu\text{m}$  Copper ) 6 panels / stack  
 Entry sheet : LE900 Back-up board : SPB-W  
 N :  $350,000\ \text{min}^{-1}$  F :  $3.5\ \text{m/min}$  f :  $10\ \mu\text{m/rev}$   
 Set life : 5,000 hits x 3 = Total 15,000 hits

### Performance of ULF coated drill [ ULFコートドリルの性能 ]

Ultra Low-CTE material  
 Promising hole quality!  
 低熱膨張基板 (Low-CTE type) における  
 安定した品質の確保を実現

#### Hole registration accuracy [ 穴位置精度 ]



#### Burr [ バリ ]

