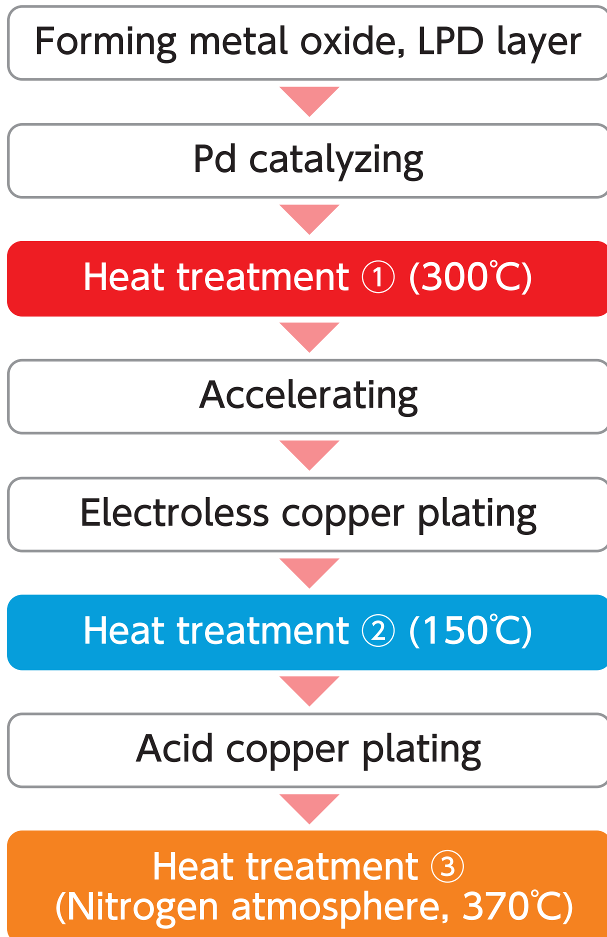
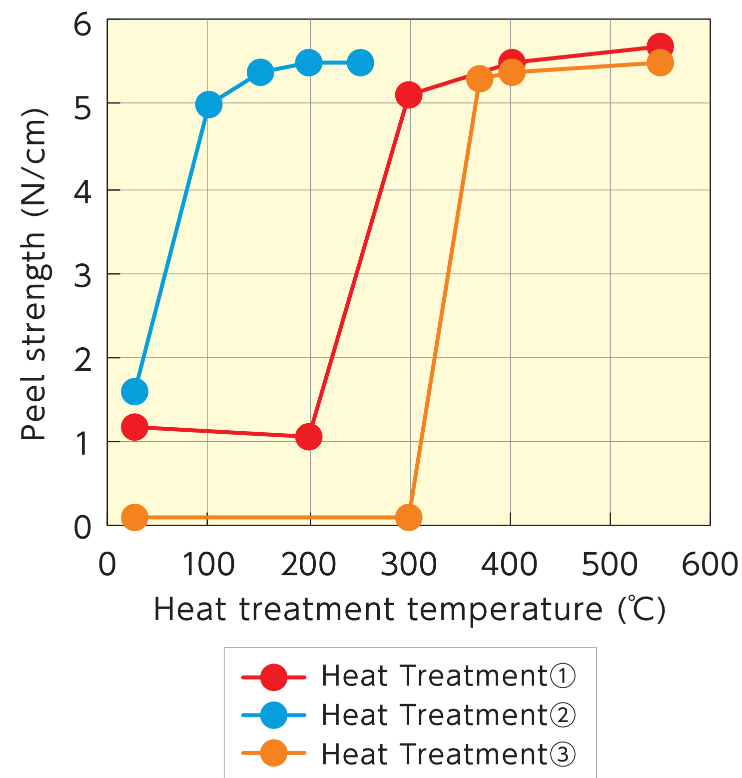
PLOPX PROCESS

Electroless copper plating process with high adhesion on glass substrate

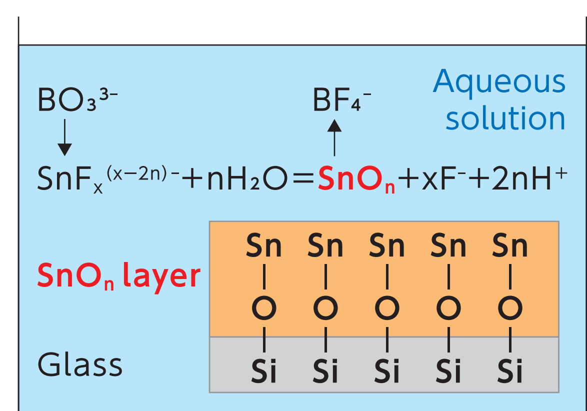
Jointly developed with Panasonic Environment Systems & Engineering Co., Ltd.



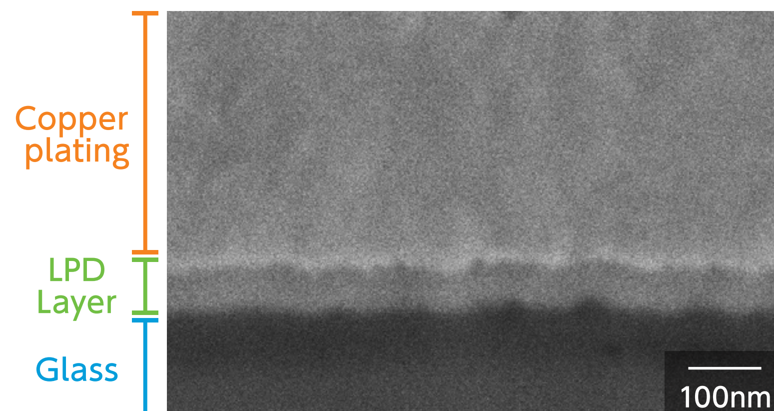
Ensure high peel strength by heat treatment



Formation of flat and smooth metal oxide layer by Liquid Phase Deposition; LPD method

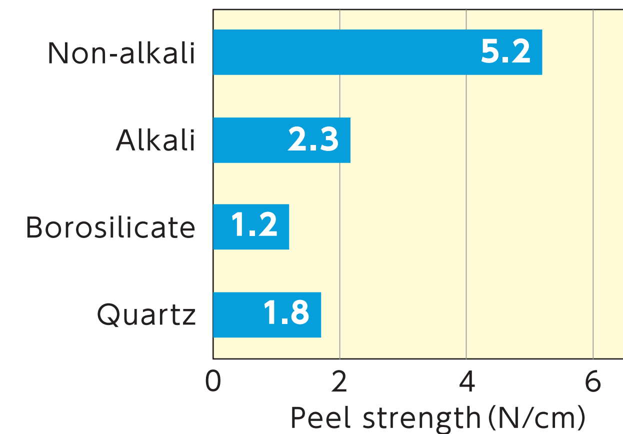


Schematic diagram of LPD method

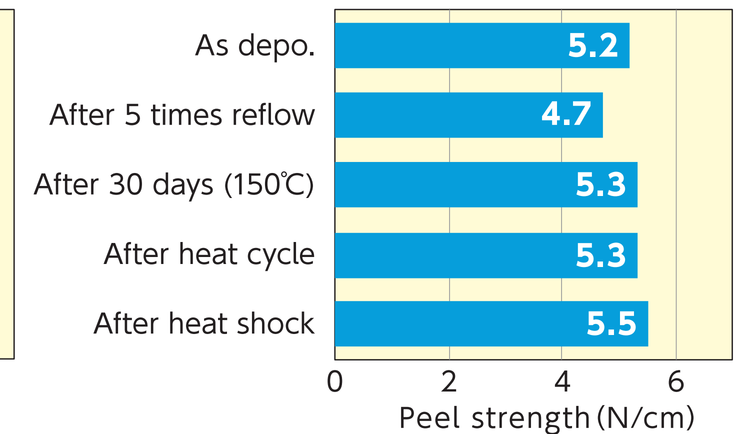


SEM image of cross section

Peel strength by glass type



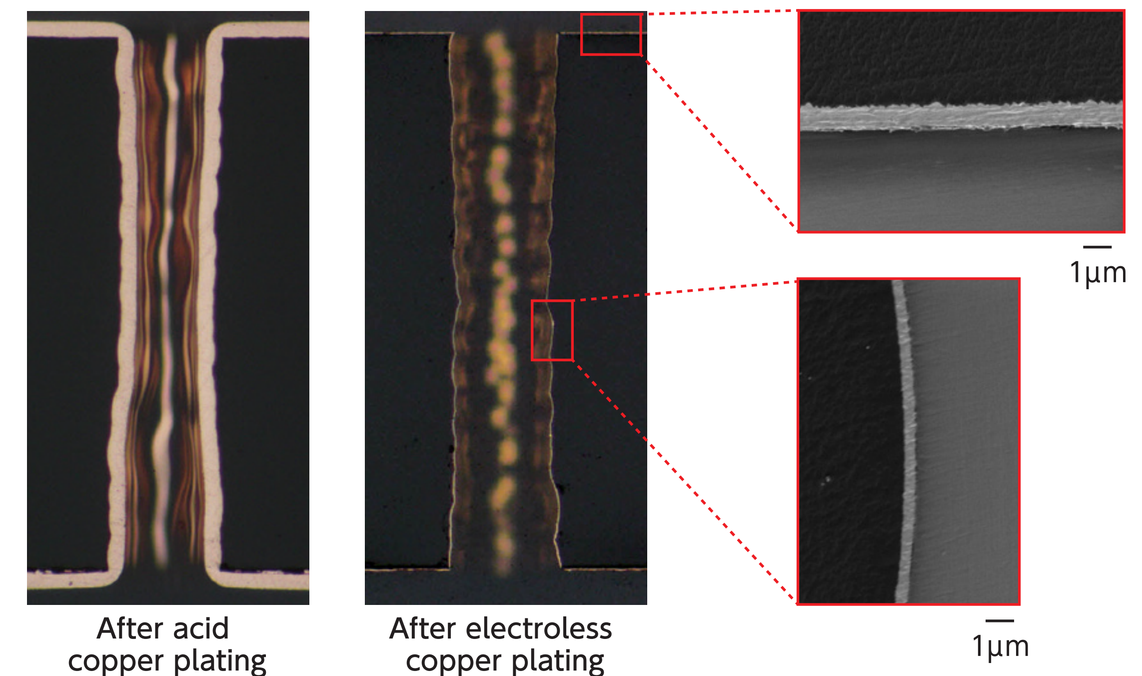
Excellent heat-resistant reliability



Reflow: over 250℃, 30s, maximum temperature 270℃
Heat cycle: -40℃, 30min→ 25℃, 5min→ 90℃, 30min→ 25℃, 5min ×200cycles
Heat shock: 300℃, 1h→ 0℃, 5min (2 times treatment)

All wet-process, can treat high-aspect ratio TGV substrate

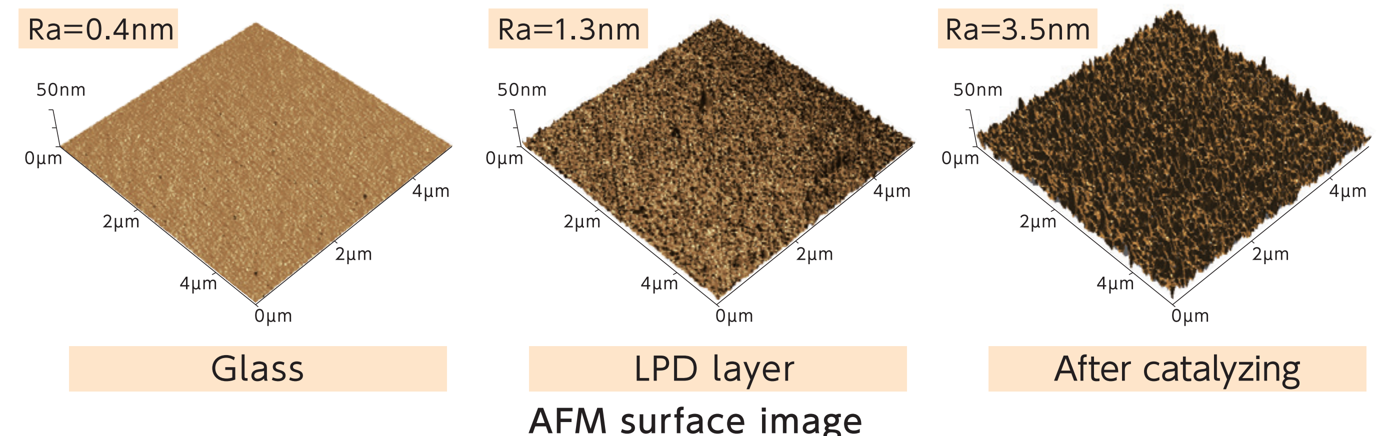
Board thickness: 300μm, hole diameter 65μm



After acid copper plating

After electroless copper plating

Highly adhesive plating films on low-profile glass substrate



AFM surface image