

GSP was developed in collaboration with Toyota, Denso and Denso Ten (Fujitsu Ten). For automotive applications, GSP has excellent electrical and mechanical reliability, even under very severe operating conditions.

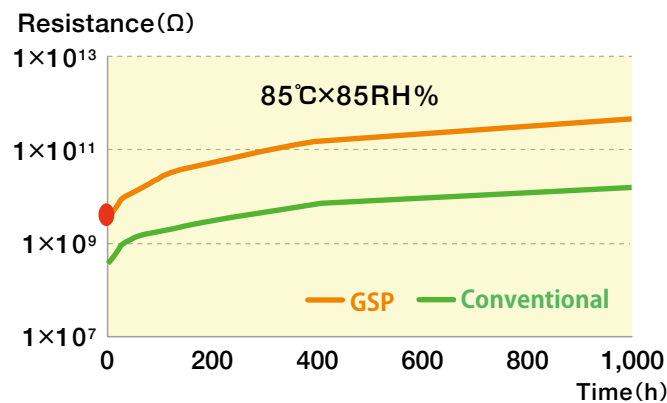
Characteristics

- High insulation resistance value ($> 10 (E + 9) \Omega$) from start to 2,000 hours
- Resistance to flux residue crack ($-40 \leftrightarrow +125^\circ\text{C}$, 2,000 cycle)
- Stable printing and solderability even after long time continuous printing
- Low solder ball generation even after long time continuous printing

Reliability

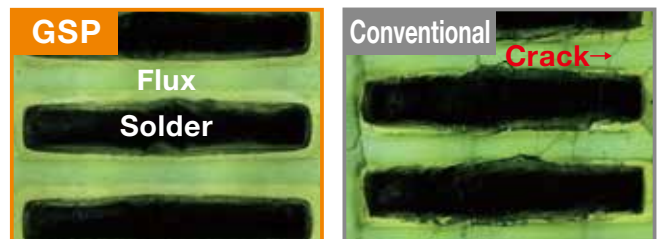
Insulation Resistance Value

- Maintain high insulation resistance from start



Resistance to residue crack (after 2,000)

- No crack flux residue



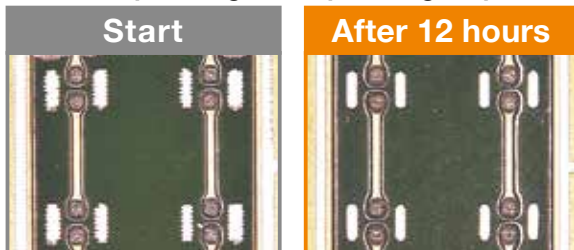
Evaluation Condition

- Cycle Condition: $-40 \leftrightarrow +125^\circ\text{C}$ 30 min
 - Observation point: 0.5mm Pitch QFP
- Observe by lighting from the back of the board

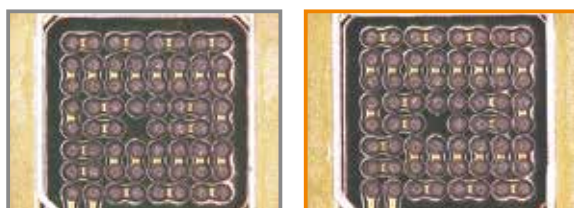
Stability over long time usage

Continuous printing

- Stable printing after prolonged period



0603 chip



0.5 mm Pitch CSP

Solder ball (after continuous printing)

- Low solder ball even after continuous printing



Evaluation Condition

- After 4 hours continuous printing
- Print/component shift
- Mask thickness 180 μ printing

