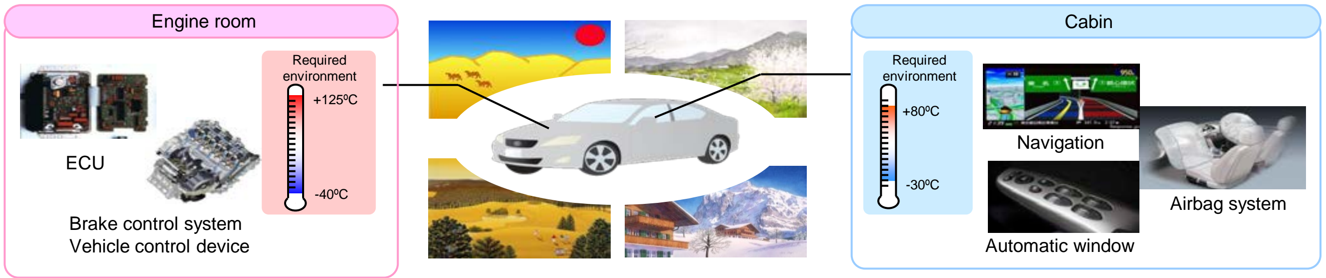
Solder paste developed in collaboration with TOYOTA Corporation

GSP Alloy composition: Sn Ag3.0 Cu0.5 (SAC305)

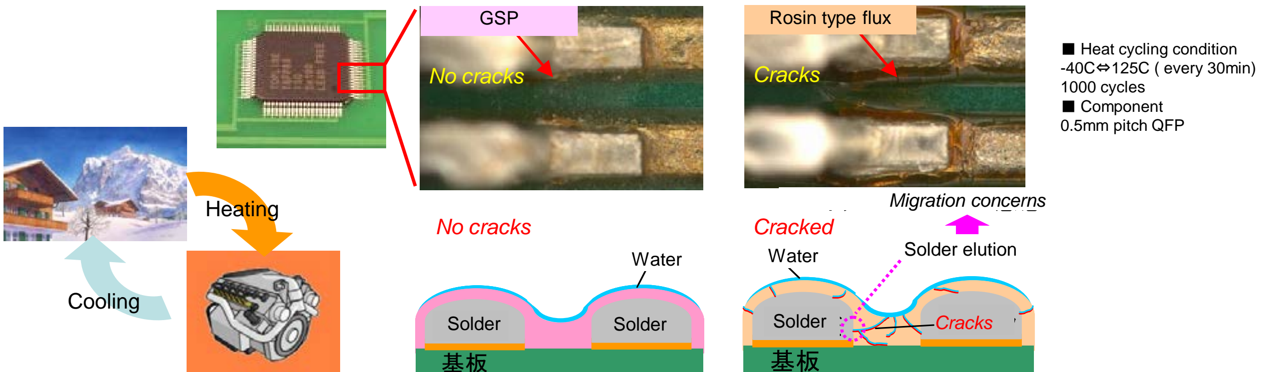
- Co-developed with TOYOTA, DENSO, and FUJITSU TEN Corporations
- Achieves very high reliability due to exceptional crack-free flux residues
- Particularly well suited to automotive electronics (e.g. ECU･HV･PHV･EV)

◆ Designed to be used even in the hardest condition for automotive electronics



GSP is designed to be used in all automotive environments and achieves very high reliability with exceptional crack-free flux residue.

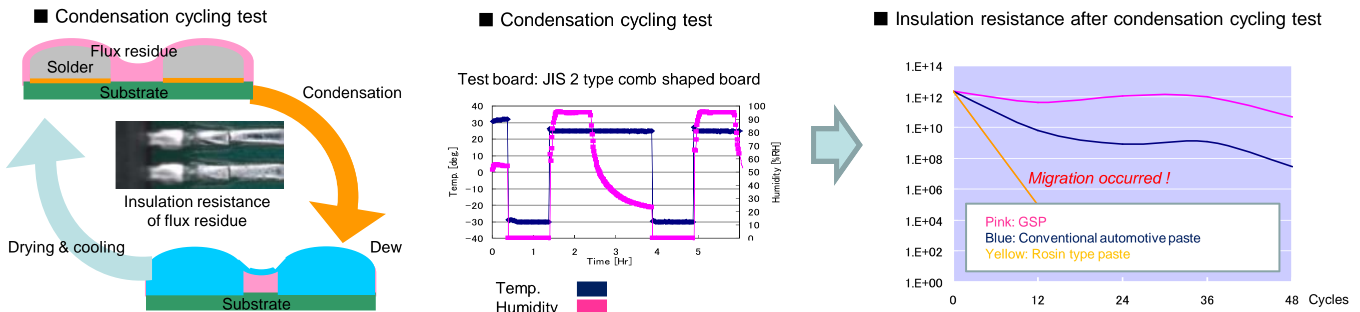
◆ Highly reliable crack-free flux residue



■ Heat cycling condition
-40C⇔125C (every 30min)
1000 cycles
■ Component
0.5mm pitch QFP

Since crack-free flux residue in GSP prevents moisture absorption and constantly secures high insulation resistance through extremely severe environmental changes, there are no requirements to clean or use coating agents after the soldering process. It helps you reduce production and process costs.

◆ Prevention of moisture absorption



◆ Compatibility with coating agent

■ Elasticity rate & Tg

● Test description
Compare elasticity rate & Tg between coating agent alone and with GSP flux added.

Elasticity rate (Mpa)	-40ºC	+25ºC
Coating agent only	703	206
GSP flux added	710	166
Glass transition point(Tg)	**Tg1**	**Tg2**
Coating agent only	-51	68
GSP flux added	-53	61

◆ Product specifications

Product name	GSP
Alloy composition	Sn96.5 Ag3.0 Cu0.5
Melting point (ºC)	217-219
Particle sizes	20-38 μm
Viscosity (Pa.s)	160±30
Flux content (%)	10.9±0.5