

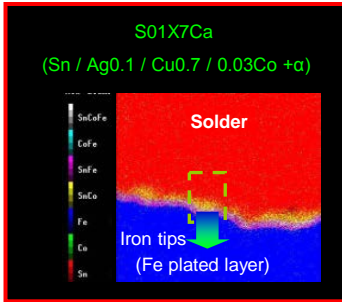
Low Ag solder wire: applicable for REACH compliance

S01X7Ca-70M



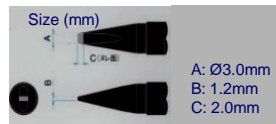
- Extends the iron tip life by having iron anti-erosion properties
- Reduces bridging in slide soldering & spiking in shot soldering
- No SVHC substances contained which are restricted by REACH

◆ Restriction mechanism of iron erosion



■ Iron tip erosion test

- Soldering robot: Japan Unix / UNIX-412R
- Iron tip temperature: 400°C
- Diameter of wire: 0.8mm dia.
- Amount of supply: 5.0mm/shot
- Speed of supply: 1.0mm/sec
- Number of shots: 10,000 shots



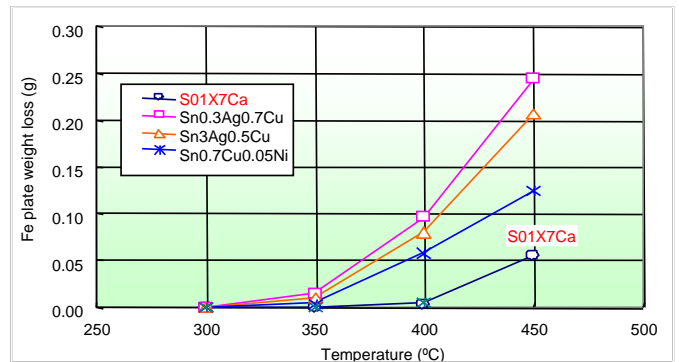
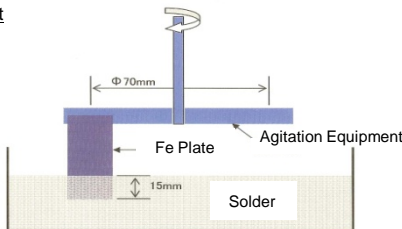
Co inhibits erosion of Fe into the solder by formulating 3 layers of Sn Fe → Sn Co Fe → Sn Co from the tip side.

◆ Iron erosion test of S01X7Ca alloy

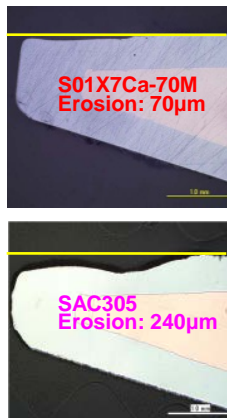
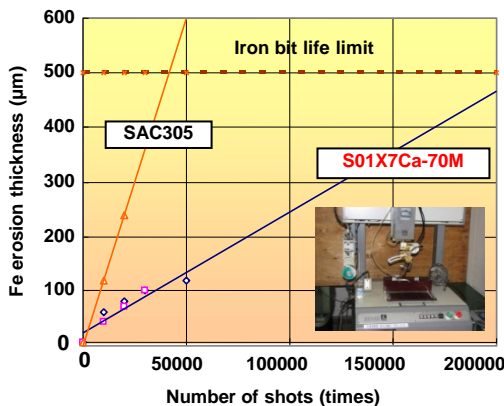
Conditions

Test specimen: 25 x 70 x 2.2mm, iron plate (SPC)
 Test procedure: Dip iron plate 15mm into solder pot
 Fe plate agitates at 30 rpm for 1 hour to measure the weight loss.

Test equipment



◆ Anti-erosion test



Conditions

- Iron bit temp.: 390°C
- Wire diameter: 0.8mm

At the 20,000th contact, erosion of the soldering tip using S01X7Ca-56M wire was only 25% of that in comparison to SAC305 alloy.

◆ Product specifications

Application	Hand, robot soldering	
Product	S01X7Ca-70M	
Alloy	Composition (%)	Sn 0.1Ag 0.7Cu 0.03Co +α
	Specific gravity	7.3
	Melting point (°C)	217 ~ 227
	Tensile strength (35Nm ²)	35
Product	Elongation (%)	36
	Flux content (wt%)	3.2
	Halide content (wt%)	0.09
	Diameter (mm)	0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 1.0, 1.2, 1.6
	Shelf life (room temp.)	3 years

*Specifications are subject to change.