

Ultra High Purity type ; TC-A

Feature & Advantage

Cu Purity of TC-A → 6N (>99.9999%)



Conventional Cu wire → 4N (>99.99%)



- ◆ Soft FAB
 - Less chip damage and Al splash than conventional Copper wires
- ◆ Ultra low Cl / S & No P dopant
 - TC-A contains extremely small amount of Cl / S which can trigger wire hardening and corrosion.
 - TC-A contains no P what trigger wire corrosion.

Mechanical Property

	0.7mil (18um)	0.8mil (20um)	0.9mil (23um)	1.0mil (25um)	1.2mil (30um)	1.5mil (38um)	2.0mil (50um)
Breaking Load (gf)	3-7	4-8	5-11	6-14	10-18	17-27	33-47
Elongation (%)	≥4	≥5	≥7	≥8	≥8	≥11	≥14

Physical Property

Young's Modulus (GPa)	54
Coefficient of Thermal Expansion ($\times 10^{-6}/\text{degC}$)	16.5
Resistivity ($\mu\Omega$ cm) @20degC	1.7
Density (g/cm ³)	8.93

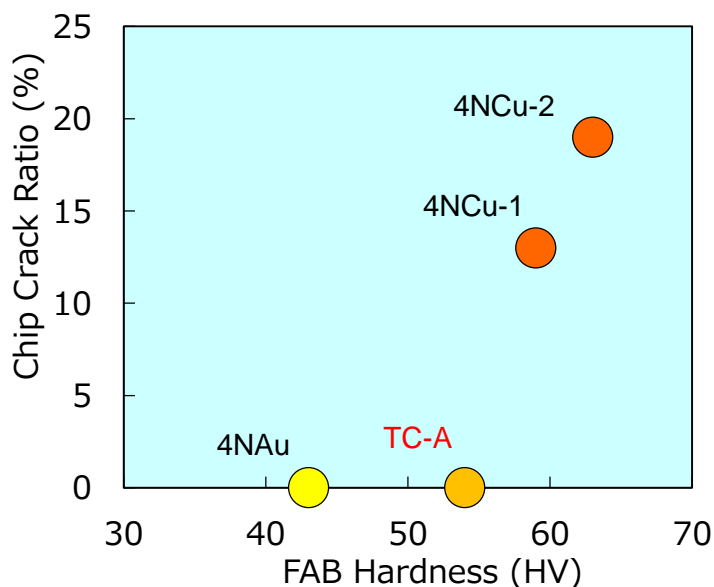


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Soft FAB

Vickers Hardness of FAB

TC-A (6N Cu)	54
Tatsuta 4NCu	59
Tatsuta Pd Coated Cu	62
Tatsuta 4NAu	43



Bonder : Old type
(poor Z-axis controllability)

TC-A shows less chip crack ratio even if wire bonder is old type.



Typical Impurity Components

Unit:ppm

	TC-A (6N Cu)	4NCu-1	4NCu-2
Cl	< 0.005 (ND)	0.54	1
Ag	0.13	9.4	0.35
S	0.01	7.2	2.0
Fe	0.008	1.9	0.32
P	< 0.001 (ND)	0.24	47
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Total	0.21	25	65

TC-A contains ultra low Cl/S and no P dopant

