

High purity & Stable FAB Type ; TC-AR

Feature & Advantage

Raw material of TC-AR → 6N (>99.9999%)



Conventional Cu wire → 4N (>99.99%)



High FAB Stability

Soft FAB

→ Less chip damage and Al splash than conventional Copper wires

Ultra low Cl / S & No P dopant

→ TC-AR contains extremely small amount of Cl / S which can trigger wire hardening and 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	4-9	5-12	6-14	10-19	20-31	36-50
Elongation (%)	≥4	≥5	≥6	≥7	≥8	≥10	≥12

Physical Property

Young's Modulus (GPa)	65
Coefficient of Thermal Expansion ($\times 10^{-6}/\text{degC}$)	16.5
Resistivity ($\mu\Omega \text{ cm}$) @20degC	1.7
Density (g/cm^3)	8.93



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Vickers Hardness of FAB

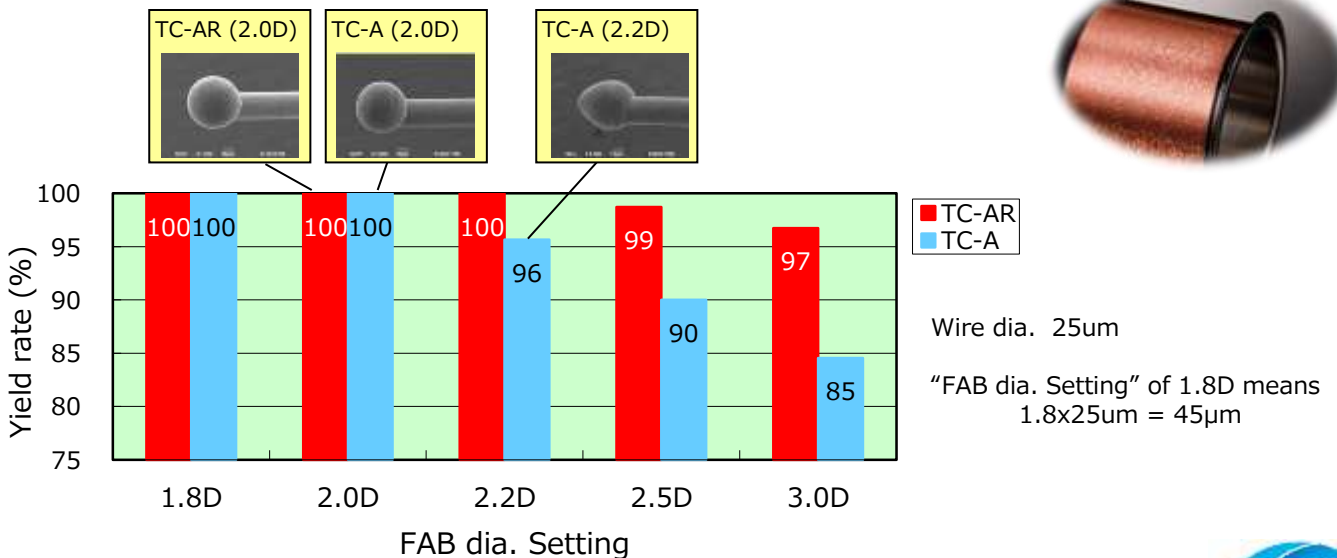
TC-AR	57
Tatsuta 4NCu	59
Tatsuta Pd Coated Cu	62
Tatsuta 4NAu	43

Typical Impurity Components

Unit:ppm

	TC-AR	4NCu-1	4NCu-2
Cl	< 0.005 (ND)	0.54	1
Ag	0.56	9.4	0.35
S	0.06	7.2	2.0
Fe	0.02	1.9	0.32
P	*** (10-50)	0.24	47
:	:	:	:
Total	32	25	65

Stable FAB Shape



Gas flow setting ; not optimum condition
 → **TC-AR FAB shape is very stable in bad condition**

