

Stick Electrode for Copper and Copper Alloy

Product	Classification		Application and Features	Diameter		
	AWS	JIS			Cu	Si
KCu-70	ECuNi	DCuNi-3	For butt or over-lap welding in Cu-Ni alloy (70%Cu-30%Ni, 80%Cu-20%Ni)	3.2 4.0 5.0	Rem.	0.15
KCu-90	—	DCuNi-1	For butt or over-lap welding in Cu-Ni alloy(90%Cu-10%Ni, 80%Cu-20%Ni)	3.2 4.0 5.0	Rem.	0.10

GMAW / GTAW Wires For Copper and Copper Alloy

Product	Classification		Application and Features	Diameter		
	AWS	JIS			Cu	Si
KMS-20 KTS-20	ERCu	YCu	For butt welding in Copper metal	1.6 2.4 3.2	Rem.	0.3
KMS-21 KTS-21	—	YCuNi-1	For butt or build-up welding in 90%Cu-10%Ni alloy		Rem.	0.02
KMS-22 KTS-22	ERCuNi	YCuNi-3	For butt or build up welding in 70%Cu-30%Ni alloy		Rem.	0.09
KMS-23 KTS-23	ERCuAl-A2	YCuAl	For welding in aluminum bronze metal		Rem.	0.02
KMS-35	ERCuSi-A	YCuSi-B	For welding in Si-bronze metal		Rem.	3.53

Typical chemical composition of weld metal (wt. %)							Mechanical Properties	
Mn	P	Pb	Fe	Ni	Ti	Others	Tensile Strength N/mm ² (kgf/mm ²)	Elongation %
1.5	0.016	0.005	0.56	30.6	0.04	—	420(42.8)	39
1.1	0.007	-	1.3	10.1	0.04	—	390(39.8)	30

Typical chemical composition of weld metal (wt. %)							Mechanical Properties	
Mn	P	Pb	Fe	Ni	Ti	Others	Tensile Strength N/mm ² (kgf/mm ²)	Elongation %
0.3	0.05	—	—	—	—	—	230(23.4)	—
0.8	0.06	—	1.20	9.2	0.30	—	390(39.8)	30
0.8	0.07	0.007	0.57	30.9	0.28	—	420(42.8)	37
—	—	0.002	0.82	—	—	Al 9.5	530(54.0)	22
0.8	—	0.02	—	—	—	—	380(38.7)	32