

Solid wires for mild steel and high tensile strength steel

Product Name	Specification		Shield gas	Application and features
	JIS	AWS		
TGC-50B	YGT50	ER70S-2	Ar	For welding of mild steel, 50kgf/mm ² high tensile strength steel, aluminium killed steel, and one side-shielded welding of pipes.
TGC-50S	YGT50	ER70S-6	Ar	For welding of mild steel, 50kgf/mm ² high tensile strength steel, aluminium killed steel, and one side-shielded welding of pipes.
TGC-50	YGT50	ER70S-G	Ar	For welding of mild steel, 50kgf/mm ² high tensile strength steel, aluminium killed steel, and one side-shielded welding of pipes.
TGC-50C	YGT50	ER70S-3	Ar	For welding of mild steel, 50kgf/mm ² high tensile strength steel, aluminium killed steel, and one side-shielded welding of pipes.
TGC-50G	YGT50	ER70S-G	Ar	For welding of mild steel, 50kgf/mm ² high tensile strength steel, aluminium killed steel, and one side-shielded welding of pipes.
TGC-90G	YGT60	ER90S-G	Ar	For welding of mild steel, 60kgf/mm ² high tensile strength steel, aluminium killed steel, and one side-shielded welding of pipes.

Solid wire for aluminium and aluminium alloy

Product Name	Specification		Shield gas	Application and features
	JIS	AWS		
TGC-1100	A1100-WY	ER1100	Ar	For welding of 1100, 1200, 3003, 304, 3203.
TGC-1100	A1100-WY	ER4043	Ar	For welding of 1100, 1200, 3003, 3203, 4043, 5052, 6061 TGC-4043 is Al-Si type solid wire whose hot crack resistibility is good.
TGC-5356	A5356-WY	ER5356	Ar	For welding of 5052, 5154, 5083, 6061, 6063. TGC-5356 is Al-Mg type.

Dia. (ømm)	Typical chemical composition of weld metal (%)							Typical mechanical properties of weld metal			Tip color
	C	Mn	Si	P	S	Cr	Mo	TS N/mm ² (kgf/mm ²)	EL (%)	IV J (kgf-m)	
1.2 1.6 2.0 2.4 3.2	0.05	1.10	0.54	0.007	0.006	-	-	580(59)	29	-29℃ 180(18)	Red
1.2 1.6 2.0 2.4 3.2	0.08	1.55	0.78	0.012	0.011	-	-	620(63)	32	-29℃ 160(16)	Yellow
1.2 1.6 2.0 2.4 3.2	0.06	1.45	0.72	0.013	0.010	-	-	590(60)	32	-29℃ 160(16)	Dark-Blue
1.2 1.6 2.0 2.4 3.2	0.07	1.17	0.64	0.010	0.010	-	-	560(57)	32	-29℃ 140(14)	Green
1.2 1.6 2.0 2.4 3.2	0.08	1.43	0.37	0.013	0.010	-	-	570(58)	32	-29℃ 130(13)	White
1.2 1.6 2.0 2.4 3.2	0.07	1.38	0.56	0.005	0.003	1.1	0.05	640(65)	30	-29℃ 190(19)	-

Dia. (ømm)	Typical chemical composition of weld metal (%)								TS of weld metal N/mm ² (kgf/mm ²)	Tip color
	Al	Si	Fe	Cu	Mn	Mg	Ti	Zn		
1.2 1.6 2.0 2.4 3.2	99.5	-	-	0.05 ~ 0.20	≤0.05	-	-	≤0.10	95(9.6)	Red
1.2 1.6 2.0 2.4 3.2	Balance	5.5	≤0.8	≤0.30	≤0.05	≤0.05	≤0.20	≤0.10	180(18.4)	Orange
1.2 1.6 2.0 2.4 3.2	Balance	-	-	≤0.10	0.05 ~ 0.20	640 (65)	0.06 ~ 0.20	≤0.10	280(29)	Yellow- Green