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Solid Wire For Gas Metal Arc Welding For MIG Welding



Solid wire for MIG welding

Solids wire for stainless steel

Product name	Specification		Shield gas	Application and features
	JIS	AWS		
MGC-308(L)	YS308(L)	ER308(L)	Ar+2%O ₂	For MIG welding of low carbon 18%Cr-8%Ni Steel (SUS304L)
MGC-308LSi	YS308LSi	ER308LSi	Ar+2%O ₂	For MIG welding of SUS304L. The arc stability, bead width and blowhole resistibility is good because of high Si. It can be applied to multi-layer welding.
MGC-309(L)	YS309(L)	ER309(L)	Ar+2%O ₂	For MIG welding of low carbon 18%Cr-8%Ni clad steel, SUS309S, and dissimilar metals such as low alloy steel or mild steel to stainless steel
MGC-309LSi	YS309LSi	ER309LSi	Ar+2%O ₂	For MIG welding of SUS309S, 18%Cr-8%Ni Clad steel and dissimilar metals to stainless steel. The arc stability, bead width and blowhole is good because of high Si. It can be applied to multi-layer welding.
MGC-310	YS310	ER310	Ar+2%O ₂	For MIG welding of 25%Cr-20%Ni Steel (SUS310S)
MGC-316(L)	YS316(L)	ER316(L)	Ar+2%O ₂	For MIG welding of low carbon 18%Cr-12%Ni-Mo steel (SUS316L) and SUS316

Dia. (\varnothing mm)	Typical chemical composition of weld metal(%)						Typical mechanical properties of weld metal		
	C	Mn	Si	Cr	Ni	Mo	TS N/mm ² (kgf/mm ²)	EL (%)	IV J (kgf-m)
0.9 1.0 1.2 1.6	0.04 (0.021)	1.75	0.94	19.74	9.91	-	570(58)	42	0℃: 98(10) -196℃ 59(6.0)
1.0 1.2 1.6 2.0	0.020	1.75	0.84	19.91	10.06	-	580(59)	42	-
1.0 1.2 1.6	0.06 (0.021)	1.77	0.36	23.86	12.83	-	580(59)	40	0℃ 130(13) -20℃
1.0 1.2 1.6 2.0	0.022	1.80	0.85	23.70	12.95	-	580(59)	40	-
1.0 1.2 1.6	0.09	1.76	0.35	26.73	20.75	-	600(61)	38	0℃ 78(8.0)
0.9 1.0 1.2 1.6	0.05 (0.021)	1.73	0.39	19.10	12.43	2.35	560(57)	42	0℃: 120(12) -120℃

Solids wire for stainless steel

Product name	Specification		Shield gas	Application and features
	JIS	AWS		
MGC-316LSi	YS316LSi	ER316LSi	Ar+2%O ₂	For MIG welding of SUS316L and SUS316. The arc stability, bead width and blowhole resistibility is good because of high Si. It can be applied to multi-layer welding.
MGC-317(L)	YS317(L)	ER317(L)	Ar+2%O ₂	For MIG welding of low carbon 18%Cr-12%Ni-3%Mo steel
MGC-347	YS347	ER347	Ar+2%O ₂	For MIG welding of 18%Cr-8%Ni-Nb steel (SUS347) and 18%Cr-8%Ni-Ti Steel (SUS321)
MGC-410	YS410	ER410	Ar+2%O ₂	For MIG welding of 13% Cr steels (SUS403, SUS410)
MGC-430	YS430	ER430	Ar+2%O ₂	For MIG welding of 18% Cr steels (SVS430)
MGC-2209 less	-	ER2209	Ar+2%O ₂	For MIG welding of duplex stainless steel

- Power source: DC+ (DCRP)
- Net 20kg of wire wound into rigid spool
- Flow rate of shielding gas: 20-25 l/min.

Dia. (\varnothing mm)	Typical chemical composition of weld metal(%)						Typical mechanical properties of weld metal		
	C	Mn	Si	Cr	Ni	Mo	TS N/mm ² (kgf/mm ²)	EL (%)	IV J (kgf-m)
0.9 1.0 1.2 1.6 2.0	0.022	1.75	0.84	19.20	12.50	2.15	550(59)	42	-
0.9 1.0 1.2 1.6	0.03	1.75	0.475	19.50	14.0	3.5	520(53)	30	-
1.0 1.2 1.6	0.04	1.70	0.40	19.90	9.95	Nb+Ta : 0.60	640(65)	41	0℃ 75(7.6)
1.2 1.6	0.09	0.42	0.33	12.68	-	-	540(55)	34	-
1.2 1.6	0.05	0.35	0.28	16.40	-	-	520(53)	28	-
0.9 1.0 1.2 1.6	0.03	1.25	0.90	22.5	8.5	3.0	690(70)	20	-

Solid Wires For Ni and Cu Based Alloy

Product Name	Specification		Shield gas	Application and features
	JIS	AWS		
MGC-Ni1	S Ni2061	ER Ni-1	Ar	Repair welding of cast iron, cladding of carbon steel, stainless steel, dissimilar welding of MONEL, CUPRO Nickel
MGC-82	S Ni6082	ER NiCr-3	Ar	Dissimilar welding of INCONEL(600), stainless steel, INCONEL and carbon steel, nickel alloy.
MGC-625	S Ni6625	ER NiCrMo-3	Ar	For welding of INCONEL 625, dissimilar welding of INCONEL and Nickel alloy, for 9%Nickel steel, high temperature and low temperature steel.
MGC-276	S Ni6276	ER NiCrMo-4	Ar	For welding of HastelloyC276, Overlay cladding of low alloy Or carbon steel
MGC-690A	S Ni6054	ER NiCrFe-7A	Ar	INCONEL 690, dissimilar welding of INCONEL, INCOLOY alloy, cladding of low alloy steel.
MGC-NiCu7	S Ni4060	ER NiCu-7	Ar	MONEL 400, dissimilar welding of MONEL and carbon steel, cladding of carbon steel.
MGC-CuNi	Y CuNi-3	ER CuNi	Ar	70%Cu-30%Ni CUPRO nickel, dissimilar welding of CUPRO nickel and copper alloy, cladding of carbon steel.

Dia. (\varnothing mm)	Typical chemical composition of Welding Rod (%)														Typical mechanical properties		Approval
	C	Mn	Si	P	S	Ni	Cu	Ti	Cr	Nb	Mo	Al	Fe	Pb	TSN/mm ² (kgf/mm ²)	EL (%)	
0.9 1.0 1.2 1.6	0.02	0.39	0.43	0.001	0.002	95.5	0.02	2.50	-	-	-	0.06	0.15	-	510	40.6	-
	0.01	3.20	0.10	0.002	0.002	72.9	0.01	0.35	20.5	2.70	-	-	0.10	-	680	41	-
	0.02	0.01	0.03	0.002	0.001	64.1	0.01	0.20	22.3	3.60	9.20	0.10	0.30	-	790	38	-
	0.01	0.47	0.02	0.001	0.001	REM	0.04	8.9	15.7	0.01	16.0	0.04	6.2	-	770	42	-
	0.02	0.25	0.17	0.004	0.001	REM	0.01	0.53	28.9	0.02	0.01	0.68	10.25	-	690	40	-
	0.09	3.10	0.18	0.005	0.003	65.0	REM	1.61	-	-	-	0.02	0.11	-	570	38	-
	0.03	0.54	0.03	-	0.003	31.1	67.24	0.29	-	-	-	0.01	0.54	0.02	374	36.3	-