



GIANT WELDING

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High quality and good price

Follow the time and never stop

Based on the market and always change

Main Products

ER70S-6, Co2 series gas shielded welding wire; drum packing welding wire; E71T-1, E71T-11,E71T-GS series flux-cored welding wire; minimum dia can achieve 0.6 mm.

Company Brand



Company Certification

ISO9001 quality system certification, the products have CE, DB, TUV and so on.

Business Philosophy

The devil is in the details,
The details determine the future

Company Future

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GIANT WELDING





































ER70S-6

									ER70S-3					
Standard:	Chemical Composition %													
AWS A5.18 ER705-3	С	Mn	Si Cu		S	Р	Ni	Mo	Cr					
Grade ER70S-3	0.06~0.15	0.90~1.40	0.45~0.75	≤ 0.50	≤ 0.035	≤ 0.025	0.025							
Туре		Sp	ool (MIG)				Tube ((TIG)						
Specification (MM)		0.8, 0.9,	1.0、1.2、1.	6、2.0		1.6、2.0、2.4、3.2、4.0、5.0								
Package	S100 / 1kg S200 / 5kg S270,S300 / 15kg-20kg					5kg / box 10kg / box length:1000MM								
Mechanical	Tensile Stre	ength (Mpa) Yield S	Strength (Mp	oa)	Elongation A	(%)	Impact Value K	V2 (J) -20℃					
Properties	2	480		≥ 400		≥ 22		≥ 2	7					
	Diameter (MM)		0.8		1.0	1.0			1.6					
MIG Welding	Welding Current A		50 - 10	0	50 - 220		80 - 350	170	- 550					
	CO2 Gas-flow L/min		15		15-20		15 – 25		- 25					
Performance characteristics	resista	nce, espec	ially high	impact to	ughness	lent plastic at low temp alloy steels	erature.	hness and o	rack					
Application	1. Weld	ding of var	ious 500 N	l / mm2 te	nsile stre	ength grade	structur	al steel con	nponents.					
Notice	The product can be kept for two years under the condition of factory packing and sealed, and the packing can be removed for three months under the usual atmospheric environment. Products should be stored in a ventilated, dry and place.													
					3. After the wire is removed from the package, it is recommended that appropriate dust proof cover be applied over the wire.									

Standard:	Chemical Composition %									
AWS A5.18 ER705-6	С	Mn	Si	Cu	S	P	Ni	Mo	Cr	
Grade ER70S-6	0.06~0.15	1.40~1.85	0.80~1.15	≤ 0.50	≤ 0.035	≤ 0.025		≤ 0.15		
Туре		Sp	ool (MIG)				Tube (TIG)		
Specification (MM)	0.8, 0.9, 1.0, 1.2, 1.6, 2.0									
Package	100	\$100 / 1kg \$200 / 5kg \$270,\$300 / 15kg-20kg							00MM	
Mechanical	Tensile Strength(Mpa) Yie			Strength (Mp	oa)	Elongation A	gation A (%) Impact Value KV2 (J)			
Properties	≥ 480			≥ 400		≥ 22		≥ 27	7	
	Diameter (MM)		8.0		1.0		1.2	- 1	.6	
MIG	Welding Current A		50 - 10	0	50 - 220)	80 - 350		170 - 550	
Welding	CO2 Gas-flow L/min		15		15-20	15-20 15 – 2		20 – 25		
Performance characteristics	resista	nce, espec	ially low in	mpact tou	ghness a	llent plastic it low tempe alloy steels.	rature.	hness and c	rack	
Application	1. Wel	ding of va	rious 500 N	l / mm2 te	nsile str	ength grade	structur	al steel com	ponents.	
Notice	seal atmo	ed, and thospheric educts shown the wire	e packing nvironmer uld be stor	can be rei it. ed in a ve d from the	moved fo ntilated, package	r three mon	ths unde	actory packi er the usual that approp		

ER70S-G

 AWS A5.18 ER70S-G
 C
 Mn
 Si
 Ti
 S
 P

 Grade ER70S-G

 O.07~0.10
 1.51~1.80
 0.65~1.00
 0.15~0.20
 ≤ 0.035
 ≤ 0.035

 Actually: As agreed between supplier and purchaser (Normal ER70S-6 + Ti)

Chemical Composition %

туре	Spool (MIO)	1006 (110)
Specification (MM)	0.8, 0.9, 1.0, 1.2, 1.6, 2.0	1.6, 2.0, 2.4, 3.2, 4.0, 5.0
Package	\$100 / 1kg \$200 / 5kg \$270 \$200 / 15kg 20kg	Skg / hoy 10kg / hoy length :1000MM

rackage	3100 / 1kg 3200 / 5k	g 52/0,5300 / 15	kg-zukg	Skg / box Tokg / box Tength : Toodwill				
Mechanical	Tensile Strength (Mpa) Yield Strengtl	n (Mpa)	A (%)	KV2 (J) -30℃	KV2 (J) -30℃		
Properties	≥ 480	≥ 400)	As agreed between	As agreed between supplier and purchaser			
	Diameter (MM)	0.8	1.0	1.2	1.6			
MIG	Welding Current A	50 - 100	50 - 2	220 80 -	350 170 - 55	170 - 550		
Welding	CO2 Gas-flow L/min	15	15-2	0 15 –	25 20 - 25	5		
	Commence of the			A STATE OF THE PARTY OF THE PAR				

	The addition of trace Ti element ER70S-G on the basis of ER70S-6 can help to reduce the spatter in CO2 gas shielded welding.
Performance	

By optimizing the chemical composition of the welding wire, the welding spatter and the weld forming can be matched properly.

Application 1. Welding of various 500 N / mm2 tensile strength grade structural steel components.

The product can be kept for two years under the condition of factory packing and sealed, and the packing can be removed for three months under the usual atmospheric environment.

2. Products should be stored in a ventilated, dry and place.

3. After the wire is removed from the package, it is recommended that appropriate dust proof cover be applied over the wire.

Standard:		Che	mical Comp	ositio	n %						
AWS E71T-1	C	Mn	Si		S		P				
Grade E71T-1/E71T-1C	≤ 0.12	≤ 1.75	≤ 0.90		≤ 0.03		≤ 0.03				
Туре	Spool (MIG)										
Specification (MM)	0.8, 0.9, 1.0,	0.8, 0.9, 1.0, 1.2, 1.6, 2.0 Package S100/1kg S200/5kg S270,S300/15kg-20k									
	X - ray detection r	equirements:			ited metal diffu natography or N		hydrogen ry): ≤10ml/100g				
Mechanical	Yield Strength (Mpa) Tensile (M		/pa)	Elongation (%)			mpact Energy(J) -20℃				
Properties	≥ 390 490 ~ 6		370		≥ 22		≥ 27				
MIG Welding Current - A	Diameter (MM)	1.0	1.2		1.4		1.6				
	Downward welding	80 - 250	120 - 3	00	140 - 400	0	180 - 450				
	Vertical upward welding		120 - 260		150 - 270		180 - 280				
	Vertical down welding		200 – 300		220 - 300		250 - 300				
	Horizontal welding		120 – 2	80 150 – 32		0	180 - 350				
Performance characteristics	performance and Small splash, ea welding, can all The weld metal is	m oxide type CO2 i soft and stable a sy slag removal, b position of weldin s treated with trac d crack resistance	rc. eautiful wel g, the weldir e elements,	ding song efficient	eam. Suitable ciency is high as good low -	for v	velding and				
Application		tructural parts of ≥ 490 MPA is the as shipbuilding.									
Notice	2. During weldin 3. When flux-co 4. Welding wire 5. Non-vacuum	spiece should be ong, the gas flow is red wire is welded warehouse humid packaging wire st re storage time sh	s generally b I, the dry eld lity should b orage time s	etwee ngatio e mair hould	n 20 and 25 L on should be 1 stained no mo not exceed ha	/ mir 5 ~ 2 re th	1 . 25 mm. an 60%.				

						E71T-11					
Standard:	Chemical Composition %										
AWS E71T-11	С	Mn	Si	S	P	A1					
Grade E71T-11	≤ 0.30	≤ 1.75	≤ 0.60	≤ 0.03	≤ 0.03	≤ 1.80					
Туре			Spool (N	/IG)							
Specification (MM)	0.8, 0.9, 1	1.0、1.2、1.6	Package	S100/1kg S	S200/5kg S270	270,S300/15kg-20kg					
Mechanical	Yield Stren	gth (Mpa)	Tensile Strengt	h (Mpa)	ation (%)						
Properties	≥ 39	0	490 - 1	670	20						
MIG Welding	Diameter (MM)		1.0	1	.2	1.6					
	Welding Current A		60 - 180	80 -	- 220	110 – 270					
	Welding V	oltage- V	12 – 20	13	- 22	14 – 26					
Performance characteristics	and stable ar Small splash welding, can The weld me	c. , easy slag rem all position of tal is treated wi	x-cored wire with roval, beautiful w welding, the weld ith trace elements stance and stabl	elding seam. ling efficienc s , and has go	Suitable for w y is high. ood low - temp	relding and perature					
Application	tensile stren	gth ≥ 490 MPA	arts of carbon ste is the most widel ding.	el and low all y used in the	loy structural welding of im	steel with portant					
Notice 1. Welding workpiece should be done oil removal, rust removal treatment. 2. Welding wire warehouse humidity should be maintained no more than 6 3. Non-vacuum packaging wire storage time should not exceed half a year packaging wire storage time should not exceed one year.											

Standard:			Chemi	cal Compos	sition %					
AWS E71T-GS		С	Mn	Si	S	P	A1			
Grade	Sample1	0.26	0.91	0.50	0.014	0.016	2.05			
E71T-GS	Sample2	0.22	1.00	0.24	0.005	0.015	2.02			
Туре				Spool (MIG						
Specification (MM)	0.8, 0.9, 1.	0.8, 0.9, 1.0, 1.2, 1.6, 2.0 Package \$100/1kg \$200/5kg \$270/15kg								
X - ray detection requirements; Deposited metal diffusible hydrogen (Chromatography or Mercury): -										
Mechanical	Yield Strength (Mpa) Tensi		Tensile (Mpa	a)	Elongation (%)	AKV Impact	Energy(J) -20℃			
Properties	≥ 490					4-				
MIG	Diameter (MM	r (MM) 1.0		1.2	1.4		1.6			
Welding Current - A	F 80		200	160 - 220	170 – 2	250	180 – 280			
	V – up / OH 55		20	120 - 180	140 – 2	200	160 – 220			
Performance characteristics	and good sha	pe of weldin	g pipe.		good arc stabili the wind speed	•				
Application	Light weight welding.	steel frame,	Suitable fo	r low impac	t value, plate th	ickness 1.0-	-4.5 mm			
	1. Welding workpiece should be done oil removal, rust removal treatment.									
	2. Welding cu polarity of	rrent should the voltage	l be used D detection l	CP; note-it ine due to the	is only necessa ne variable-volta	ry to change ige source.	e the			
Notice	3. When flux-	cored wire is	s welded, ti	he dry elong	ation should be	10 ~ 20 mm	1.			
	4. Welding wi	re warehous	e humidity	should be r	maintained no m	ore than 60	%.			
		m packaging wire storage			ould not exceed ed one year.	half a year,	vacuum			

ER4043

							ER1100				
Standard:		Chemical Composition %									
AWS A5.10 AWS ER1100	Si	Fe	Cu	Mn	Zn	Ni	AL				
Grade ER1100	≤ 0.95		0.05 - 0.2	≤ 0.05	≤ 0.10	≤ 0.01	≥ 99				
Туре		Spool (MIG)				Tube (TIG)					
Specification (MM)	0.8	, 0.9, 1.0, 1.2	, 1.6, 2.0		1.6, 2	2.0, 2.4, 3.2, 4	.0、5.0				
Package	S100 /0.5kg S200	/ 2kg S270,S300	/ 6-7kg \$360	/20kg 5	kg / box 1	Okg / box len	gth :1000MM				
Mechanical	Fusion Temperature°C	Electrical IACS	Heat W	m.k Ten	sile Mpa	Yield Mpa	Elongation %				
Properties	646 - 657	62%	210 -2	230 7	0 - 95	30 - 55	20 - 30				
	Diameter	(MM)		1.2	1.	6	2.0				
MIG	Welding Current A		180	- 300	200 -	400	240 - 450				
Welding	Welding Voltage- V		18	18 – 26 20		28	22 – 32				
TIG	Diameter (MM)		2.0	2.0 - 2.4		4.0	4.0 - 5.0				
Welding	Welding Current A		150	150 – 250		320	220 - 400				
Performance characteristics	Excellent cor and excellent The welding :	machinability seam is beaut atching after	ince, excel y. iful and bri	ght, the arc	is stable	VIDE CONTRACTOR					
Application	It is widely u	ial for pure al sed in connec ctory and wel	ction of alu	minum bus	bar and gu um alloy si	ide bar in ele uch as electri	ctrolytic c power.				
Notice	environmen 2. Products sh 3. After the wi	the packing out.	an be remoted in a vent	oved for thr ilated, dry a package, it is	ee months and place.	under the us	ual atmospheric				

Standard:	Chemical Composition %										
AWS A5.10 AWS ER4043	Si	Fe	Cu	Mn	Zn	Othe	er AL				
Grade ER4043	4.5 - 6.0	≤ 0.80	≤ 0.30 ≤ 0.05		≤ 0.10	0 -	Rest				
Туре					Tube (TIG)						
Specification (MM)	0.8	3, 0.9, 1.0, 1.2,	1.6, 2.0		1.6, 2	2.0, 2.4, 3.2,	4.0、5.0				
Package	S100 /0.5kg S200	/ 6-7kg S360 /	20kg	5kg / box 1	Okg / box le	ngth :1000MM					
Mechanical	Fusion Temperature [*] C	Electrical IACS	Density g/r	nm3 Te	nsile Mpa	Yield Mpa	Elongation %				
Properties	575 - 630	42%	2.68	1	30 – 160	70 – 120	10 – 18				
	Diameter (MM)		1.	.2	1.	6	2.0				
MIG	Welding Current A		180 -	- 300	200 -	400	240 - 450				
Welding	Welding Voltage- V		18 -	- 26	20 -	28	22 - 32				
TIG	Diameter (MM)		1.6 -	- 2.4	2.4 -	4.0	4.0 - 5.0				
Welding	Welding (150 -	- 250	200 -	320	220 – 400					
Performance characteristics	welding forging it is easy to properly and the welding in the welling in the well	Si, aluminum ng and casting roduce brittle corrosion res s beautiful and e color is diffe	materials I Mg2Si in th istance of t I bright, the	pecause of e weld se he joint. e arc is st	of low sensi am during able, the sp	tivity to hot welding, whi	cracking. ch reduces the				
Application	Recommende	d for welding	6061 ,6XXX	series;3)	(XXand2XX	X series alun	ninum alloy.				
Notice	The product can be kept for two years under the condition of factory packing and sealed, and the packing can be removed for three months under the usual atmospheric environment.										
	3. After the w	 Products should be stored in a ventilated, dry and place. After the wire is removed from the package, it is recommended that appropriate dust proof cover be applied over the wire. 									

ER304

								ER5356				
Standard:		Chemical Composition %										
AWS A5.10 ER5356	Si	Fe	Cu	Cu Mn		Zn	Mg	AL				
Grade ER5356	≤ 0.25	≤ 0.40	≤ 0.10	0.10 0.05 - 0.2		≤ 0.10	4.5 - 5.5	Rest				
Туре		Spool (MI	G)		Tube (TIG)	pe (ΠG)						
Specification (MM)	0.0	8, 0.9, 1.0, 1	.2, 1.6, 2.0			1.6, 2.	0, 2.4, 3.2, 4.	0, 5.0				
Package	S100 /0.5kg S26	00 / 2kg S270,S	300 / 6-7kg S360) /20kg	5k	g / box 10	kg / box leng	th :1000MM				
Mechanical	Fusion Temperature°C	Electrical IA	ACS Density (g/mm3	Tensi	le Mpa	Yield Mpa	Elongation %				
Properties	574 - 638	29%	2.6	4	250	- 300	120 - 160	15 – 25				
	Diamete	er (MM)		1.2		1.6		2.0				
MIG	Welding Current A		180	180 – 300 200		200 -	400	240 – 450				
Welding	Welding	-18	3 – 28	20 - 24		24	22 - 34					
TIG	Diameter (MM)		1.6	1.6 - 2.4		2.4 -	4.0	4.0 - 5.0				
Welding	Welding	150	- 250		200 -	320	0 220 – 400					
Performance characteristics	has good co Forgability; The weld for treatment is	rrosion resi rmation is b white;	stance, therr	nal crac ine, the	king i	resistance er is little	aining 5% ma , high strengt , and the anoc purpose weld	h and good				
Application							ium, aluminur nagnesium all					
Notice	sealed, an environme 2. Products 3. After the	nd the packing ent. should be st wire is remo	ng can be ren cored in a ven	tilated, package	or thre	e months	of factory pa under the usu nded that app	al atmospheric				

Standard:			Chemic	al Composi	tion %						
AWS A 5.9 YB/T5092	С	Mn	Si	Cr	Ni	P	S				
Grade ER304	≤0.08	1.0 - 2.5	≤ 0.60	17 - 19	8 – 11	≤ 0.03	≤ 0.03				
Туре		Spool (MIC	3)		Ī	ube (TIG)					
Specification (MM)	(0.8, 0.9, 1.0,	1.2、1.6、2.0		1.6、2.0、	2.4、3.2、4.0、	5.0				
Package	S100 /1kg	g S200 / 5kg S2	70,S300 / 15-20	kg 5k	g / box 10kg	/ box length	:1000MM				
Mechanical		Tensile Strengt	th Mpa		Elongation after fracture A (%)						
Properties		≥ 520				≥ 30					
Diameter (MM)	0.8	1.0	1.2	1.6	2.0	2.5	3.2				
Current (A)	70 ~ 150	100 ~ 200	140 ~ 220	50 ~ 100	100 ~ 200	200 ~ 300	300 ~ 400				
Application	equipment	and machine		quire good co	relding of sim omprehensive						
Notice	Surface in welding p of the gro 2. In order to Ar+2%O2 suggest p wind spee 3. In the well properties 4. The above Users sho	npurities suc lace, so as to ove and its s o obtain good and shield ga rotect gas pu d limit ≤ 1.0 i ding process and crack re welding met ould evaluate	h as oil, rust oprevent blow urroundings of the second of	and water she whole, crack is should be po properties of 0-25 L/min foiled gas flow rotection at the line energy of weld metal, and spectorocess acco	ould be remove ould be thoround so on during sear r MIG welding rate 8-15 L/m he back of welding to their the formal properties.	oughly removering welding. In the suggest progression of the suggest progre	ed in the The surface rotect gas Iding, h 1~3 mm; nical tention to.				

		Chemica	al Compos	sition %				
Mn	Si	Cr	Ni	Р	S	Mo	Cu	

Grade ER308	≤0.08	1.0 - 2.5	0.3 - 0.65	19.5 - 22	9 - 1	1 ≤0.03	≤0.03	≤0.75	≤0.75
Туре		Sp	ool (MIG)				Tube (T	IG)	

Specification (mm /	0.0, 0.3, 1.0, 1.2, 1.0, 2.0	1.0, 2.0, 2.4, 5.2, 4.5, 5.6
Package	S100 /1kg S200 / 5kg S270,S300 / 15-20kg	5kg / box 10kg / box length :1000MM

Mechanical		lensile Streng	tn Mpa		Elongation after fracture (A (%)					
Properties		≥ 550				≥ 35				
Diameter (MM)	0.8	1.0	1.2	1.6	2.0	2.5	3.2			
Current (A)	70 ~ 150	100 ~ 200	140 - 220	50 ~ 100	100 ~ 200	200 ~ 300	300 ~ 400			

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ER308 welding wire is also called H08Cr21Ni10Si, the main component is 18Cr-8Ni. the weld metal has good mechanical properties and intergranular corrosion resistance, and the weld seam has good crack resistance.

For welding 18-8. 18-12 and 20-10 austenitic stainless steels, it is often used in the welding of similar parent metals, especially Type 304, such as OCr19Ni9. 00Cr19Ni10 steel.

- Oil, dirt and rust on the welding wire surface should be removed before welding. Surface impurities such as oil, rust and water should be thoroughly removed in the welding place, so as to prevent blowhole, crack and so on during welding. The surface of the groove and its surroundings should be polished with metallic gloss.
- 2. In order to obtain good mechanical properties of welding seam, suggest protect gas Ar+2%O2 and shield gas flow rate 20-25 L/min for MIG welding. For TIG welding, suggest protect gas pure Ar and shield gas flow rate 8-15 L/min ,Arc length 1~3 mm; Length of the tungsten pole is about 3~5 mm; wind speed limit ≤ 1.0 m/s, argon protection at the back of welding area.
- 3. In the welding process, the welding line energy directly affects the mechanical properties and crack resistance of weld metal, and should be paid more attention to.
- 4. The above welding methods, conditions and specifications are for reference only. Users should evaluate the welding process according to their own welding characteristics before using the welding wire for the formal product welding.

ER307Si

Standard:	Chemical Composition %												
AWS A 5.9 YB/T5092	C	Mn	Si	Cr	Ni	P	S	Mo	Cu				
Grade ER307Si	0.04-0.14	6.5- 8.0	0.65 - 1.00	18.5- 22	8- 10.75	≤0.03	≤0.03	≤0.75	≤0.75				
Туре		Sp	ool (MIG)				Tube (T.	G)					
Specification (MM)		0.8, 0.9,	1.0、1.2、1	.6, 2.0		1.6、	2.0、2.4、3	.2, 4.0, 5.0)				
Package	S100	/1kg S200	/ 5kg S270,S3	800 / 15-20kg	9 5	kg / box	10kg / box	length :1	MM000				
Mechanical		Tensile Strength Mpa Elongation after fracture A (%)											
Properties			≥ 590				≥ 35	i.					
Diameter (MM)	0.8	1	.0	1.2	1.6	2.0		2.5	3.2				
Current (A)	70 ~ 150	100 -	200 14	0 ~ 220	50 ~ 100	100 ~ 2	200 200	~ 300	300 ~ 400				
Application	stainless resistant for non-r	s steel MIC ce and lov magnetic		ding wire. sitivity di manganes	The weld ue to its hi se steel an	metal has gh manga d so on.	good duc nese cont	tility and e ent. It is s	crack uitable				
Notice	Surfac welding around 2. In orde Ar+2% 3. In the ward proper	t is used for welding of high strength steel, different kinds of steel, such as H617 steel. Oil, dirt and rust on the welding wire surface should be removed before welding. Surface impurities such as oil, rust and water should be thoroughly removed in the welding place, so as to prevent blowhole, crack and so on during welding. The surface around 10mm of the groove and its surroundings should be polished with metallic glos. In order to obtain good mechanical properties of welding seam, suggest protect gas Ar+2%O2. In the welding process, the welding line energy directly affects the mechanical properties and crack resistance of weld metal, and should be paid more attention to. The above welding methods, conditions and specifications are for reference only. Users should evaluate the welding process according to their own welding											

Jiangsu Giant Welding Co.,Ltd

									ER308L				
Standard:	Chemical Composition %												
AWS A 5.9 YB/T5092	С	Mn	Si	Cr	Ni	P	S	Мо	Cu				
Grade ER308L	≤0.03	1.0 - 2.5	0.3 - 0.65	19.5 - 22	9 – 11	≤0.03	≤0.03	≤0.75	≤0.75				
Туре		Sp	ool (MIG)				Tube (T	IG)					
Specification (MM)		0.8, 0.9,	1.0, 1.2,	1.6, 2.0		1.6、	2.0、2.4、3	.2、4.0、5.	0				
Package	S10) /1kg S200	/ 5kg S270,S	300 / 15-20k	g 5	kg / box	10kg / box	length :1	000MM				
Mechanical		Tensile	Strength M	lpa		Elonga	tion after	fracture A	(%)				
Properties			≥ 520			≥ 35							
Diameter (MM)	0.8	0.8 1.0		1.2	1.6	2.0		2.5	3.2				
Current (A)	70 ~ 150	100 -	200 14	0 ~ 220	50 ~ 100	100 ~ 2	200 200	~ 300	300 ~ 400				
Application	carbon s ultra-low intergrai Used for resistant 18Cr-8Ni	tainless s carbon ty nular corre welding u	teel. The v ype, which osion resisultra-low c 800 C stee steel, arc	velding pr reduces to stance is e arbon 00C I 0Cr18Ni	3Cr21Ni10S ocess is ex the precipit excellent. r19Ni10 sta 10Ti. Mainly te to the in	cellent ar ation of in ainless ste used for	nd the wel ntergranuleel structu synthetic	d metal is ar carbid ires or co fiber, we	of es. The rrosion Iding				
Notice	Surfac weldin of the 2. In orde Ar+2% protec the tur back o 3. In the proper 4. The ab Users	e impurition of place, so groove an er to obtain O2 and sh t gas pure ngsten pol f welding prefies and cove welding should events ove welding should events over welding should events over welding should events over welding should events over the control of the contr	es such as of as to predict of as to predict of as flower of a such as the control of as the control o	oil, rust a vent blow undings s chanical p ow rate 20 ield gas fl 3~5 mm; welding l ance of w s, condition	surface sh nd water sl hole, crack hould be poroperties of -25 L/min for ow rate 8-1 wind speed ine energy eld metal, a ons and speed cocess accolling wire for	hould be to and so on olished wif f welding or MIG wel 5 L/min ,A I limit ≤ 1.1 directly at and should edification ording to t	horoughly I during w th metallic seam, sug ding. For rc length 0 m/s, arc ffects the I be paid r s are for r heir own	removed elding. The gloss. gest prot TIG weldi 1~3 mm; yon protect mechanic more atter eference welding	in the le surface lect gas lec				

									ER308LSI				
Standard:				Chemic	al Compos	sition %							
AWS A 5.9 YB/T5092	C	Mn	Si	Cr	Ni	P	S	Мо	Cu				
Grade ER308LSi	≤0.03	1.0 - 2.5	0.65 - 1.00	19.5 - 22	9 – 11	9 - 11 ≤0.03 ≤0.03 ≤0.75 ≤							
Туре		Sp	ool (MIG)				Tube (T	(G)					
Specification (MM)		0.8, 0.9	. 1.0, 1.2,	1.6、2.0		1.6,	2.0、2.4、3	.2、4.0、5	.0				
Package	S100 /	1kg S200	/ 5kg S270,S	300 / 15-20	cg 5	kg / box	10kg / box	length:	1000MM				
Mechanical		Tensile	Strength M	ра		Elongation after fracture A (%)							
Properties			≥ 580			≥ 35							
Diameter (MM)	0.8	1	.0	1.2	1.6	2.0		2.5	3.2				
Current (A)	70 ~ 150	100 -	- 200 14	0 ~ 220	50 ~ 100	100 - 2	200 200	~ 300	300 ~ 400				
Application	welding m of Si, the f little, and Widely use steel, weld	aterial, a fluidity is the excel ed in raily ling arc s	nd its depo better, the lent compr way locomo tability, be	sited met shape is ehensive otives,suc autiful we	more beau mechanica h as weldir	ow carbon tiful, the a I propertie ng ultra-lov ng crack re	type. Bec rc is stabl s are obta v carbon 1 esistance.	ause of the spained. 8Cr-8Ni	he addition atter is				
Notice	Surface Vweldin of the g 2. In order Ar+2%C protect the tung back of 3. In the w Tropert 4. The abo Users s	impuriting place, roove and to obtain 22 and ship gas pure gsten polywelding prices and cove welding bould ev	es such as so as to prod its surron good merield gas flower Ar and she is about ara. Toccess, the rack resisting method aluate the	oil, rust a revent blow undings s chanical p ow rate 20 ield gas fl 3 ~ 5 mm; welding lance of w s, condition	hould be p roperties of -25 L/min f ow rate 8-1	hould be took and so colished with the welding or MIG welding to the solution of the welding to	horoughly on during with metallic seam, sug ding. For rc length of m/s, arg ffects the labe paid n s are for r heir own w	removed welding. gloss. gest prof TIG weld 1~3 mm; on prote mechanic fore attered welding	in the The surface ect gas ing, suggest Length of ction at the al nition to. only.				

Мо	Cu
≤0.75	≤0.75

1.6, 2.0, 2.4, 3.2, 4.0, 5.0 5kg / box 10kg / box length :1000MM

S

≤0.03

Tensile Strength Mpa Elongation after fracture A (%) ≥ 520 ≥ 30 0.8 1.0 1.2 1.6 2.0 2.5 3.2 70 ~ 150 100 ~ 200 140 ~ 220 50 ~ 100 100 ~ 200 200 ~ 300 300 ~ 400

Chemical Composition %

Ni

12 - 14

P

≤0.03

Application

Grade ER309

C

≤0.03

Mn

Si

0.8, 0.9, 1.0, 1.2, 1.6, 2.0 S100 /1kg S200 / 5kg S270,S300 / 15-20kg

1.0 - 2.5 0.3 - 0.65

Cr

23 - 25

ER309L, also known as H03Cr24Ni13Si, is the welding wire for ultra-low carbon stainless steel. Its weld metal is super low carbon. Because of low carbon content, it does not cause carbide precipitation in intergranular, and has excellent intergranular corrosion resistance. The same type of stainless steel structure, composite steel and dissimilar steel are used in synthetic fiber, petrochemical equipment and so on. They can also be used in nuclear reactor, pressure vessel inner wall transition layer surfacing welding and tower inner member welding.

- 1. Oil, dirt and rust on the welding wire surface should be removed before welding. Surface impurities such as oil, rust and water should be thoroughly removed in the welding place, so as to prevent blowhole, crack and so on during welding. The surface of the groove and its surroundings should be polished with metallic gloss.

 2. In order to obtain good mechanical properties of welding seam, suggest protect gas Ar+2%02 and shield gas flow rate 20-25 L/min for MIG welding. For TIG welding, suggest
- protect gas pure Ar and shield gas flow rate 8-15 L/min ,Arc length 1~3 mm; Length of the tungsten pole is about $3\sim 5$ mm; wind speed limit ≤ 1.0 m/s, argon protection at the back of welding area .
- In the welding process, the welding line energy directly affects the mechanical properties and crack resistance of weld metal, and should be paid more attention to.
- 4. The above welding methods, conditions and specifications are for reference only. Users should evaluate the welding process according to their own welding characteristics before using the welding wire for the formal product welding.

440	
ard '	Chemical Composition %

Standard:	Chemical Composition %											
AWS A 5.9 YB/T5092	С	Mn	Si	Cr	Ni	P	S	Mo	Cu			
Grade ER309	≤0.12	1.0 - 2.5	0.3 - 0.65	23 - 25	12 - 14	≤0.03	≤0.03	≤0.75	≤0.75			
Туре		Sp	ool (MIG)				Tube (T	IG)				
Specification (MM)		0.8, 0.9,	1.0, 1.2,	1.6, 2.0		1.6、	2.0、2.4、3	.2, 4.0,	5.0			
Package	\$100	S100 /1kg S200 / 5kg S270,S300 / 15-20kg 5kg / box 10kg / box length :1										
Mechanical		Tensile Strength Mpa Elongation after fracture										
Properties		1	≥ 530				≥ 30)				
Diameter (MM)	0.8 1.0 1.2 1.6					2.0		2.5 3.3				
Current (A)	70 ~ 150	100 -	200 1	40 ~ 220	50 ~ 100	100 ~ 2	200 200	~ 300	300 ~ 400			
Application	stainles chromiun propertie corrosio	s steel lin m steel, h es, crack n resistan used in 2	ing, dissi igh manga resistance ice. 22Cr-12Ni	milar steel anese stee and oxida	Cr19Ni10 I, etc. The ation resist	and low ca weld meta ance, as v	arbon stee I has good vell as exc	el) and hi d mecha cellent h	nical eat and			
Notice	Surfac welding of the 2. In order Ar+2% protect the tunn back of 3. In the war proper 4. The ab Users:	e impurition of the control of the c	es such as o as to product of the surror of	s oil, rust a event blow bundings s chanical p ow rate 20 nield gas fl 3~5 mm; e welding li tance of wis, condition welding pro-	ow rate 8-1	hould be to and so on olished wif f welding : or MIG wel 5 L/min ,A I limit ≤ 1.0 directly af and should ecification ording to t	horoughly during we th metallic seam, sug ding. For rc length 0 m/s, arg fects the r l be paid m s are for re heir own w	removed elding. T gloss. gest pro TIG weld 1~3 mm; on prote mechanic nore atte eference velding	I in the he surface tect gas ing, sugges Length of ction at the cal ntion to. only.			

									ER309LSi				
Standard:	Chemical Composition %												
AWS A 5.9 YB/T5092	С	Mn	Si	Cr	Ni	Р	S	Mo	Cu				
Grade ER309LSi	≤0.03	1.0 - 2.5	0.65 - 1.0	23 - 25	12 - 14	≤0.03	≤0.03	≤0.75	≤0.75				
Туре		Sp	ool (MIG)				Tube (T	IG)					
Specification (MM)		0.8, 0.9,	1.0, 1.2, 1	1.6、2.0		1.6、	2.0、2.4、3	.2、4.0、5	.0				
Package	\$10	0 /1kg S200	/ 5kg \$270,\$	300 / 15-20k	g 5	kg / box	10kg / box	length :	1000MM				
Mechanical		Tensile	tion after	fracture A	A (%)								
Properties		. 1	≥ 550			≥ 35							
Diameter (MM)	0.8	0.8 1.0		1.2	1.6	2.0		2.5	3.2				
Current (A)	70 ~ 15	0 100 ~	200 14	0 ~ 220	50 ~ 100	100 ~ 2	200 200	~ 300	300 ~ 400				
Application	It is a st molten i because It is ofte on the ir	ainless ste ron, thus r of low car n used in	eel MIG wi nore beau rbon conte welding ca if reaction	re, which tiful shap ent, good arbon stee vessel in	3Si1, is mai can be weld e, smooth v corrosion r el and stain petrochem ness.	ded in all vire feedir esistance less steel	position. (ng, stable , surfacin	Good flui arc, few	dity of spatter, on metal				
Notice	Surfac weldin of the 2. In orde Ar+2% protec the tur back of 3. In the proper 4. The ab Users	e impuritieg place, so groove and or to obtain O2 and sh t gas pure ngsten polof welding protes and crove weldir should evant ove weldir should evant of the should ev	es such as of as to predict as to predict surround good medical gas flower and she is about area. Occess, the rack resisting methods	oil, rust a vent blow undings s chanical p ow rate 20 ield gas fl 3~5 mm; welding l ance of w s, condition	surface should water shole, crack hould be poroperties of -25 L/min for ow rate 8-15 wind speed ine energy eld metal, a not speed cocess accoding wire for	nould be the and so on olished with feelding so milG welfor the feel feel feel feel feel feel feel fe	noroughly during we he metallic seam, sugding. For received his arguments of the metallic seam, suggested he metallic seam, suggested he metallic seam with the paid metallic seam with the metallic seam, suggested in the metallic seam, suggested in the metallic seam with the metallic seam, suggested in the metallic seam with the seam with the metallic seam with the metallic seam with the meta	removed elding. The gloss. gest proteffic welding ~ 3 mm; on protect mechanicatione attentione elding elding	in the e surface ect gas ng,suggest Length of tion at the al tion to.				

Caradanda				Observis	.1.0	141 0/					
Standard: AWS A 5.9				Chemic	al Compos	ition %					
YB/T5092	C	Mn	Si	Cr	Ni	P	S	Mo	Cu		
Grade ER310	0.08- 0.15	1.0 - 2.5	0.3 - 0.65	25 - 28	20 - 22.5	≤0.03	≤0.03	≤0.75	≤0.75		
Туре		Sp	ool (MIG)		Tube (TIG)						
Specification (MM)		0.8, 0.9	, 1.0, 1.2,	1.6、2.0		1.6, 2.0, 2.4, 3.2, 4.0, 5.0					
Package	S100	/1kg S200 /	5kg S270,5	300 / 15-20	kg 5	kg / box	/ box 10kg / box length:1000MM				
Mechanical		Tensile	Strength M	Л ра		Elonga	ition after	fracture /	A (%)		
Properties			≥ 550				≥ 3	0			
Diameter (MM)	0.8	1.	.0	1.2	1.6	2.0		2.5	3.2		
Current (A)	70 ~ 150	100 ~	200 14	10 ~ 220	50 ~ 100	100 ~ 2	200 200	0 ~ 300	300 ~ 400		
Application	ER310 is also known as H12Cr26Ni21Si. The melting gold contains 25Cr-20Ni. it is mostly used in the welding ratio KMS of 310S stainless steel. 309 is more suitable for dissimilar metal welding and high self-hardening alloy steel and high carbon steel welding; It can be used for welding stainless steel and stainless steel lining, as well as dissimilar steel, high chromium steel, high manganese steel and so on. The weld metal has good mechanical properties, crack resistance and oxidation resistance, as well as excellent heat resistance and corrosion resistance.										
Notice	Surface welding the g 2. In orde Ar+2%C protect tungste of weld 3. In the v propert 4. The aboutes s	The weld metal has good mechanical properties, crack resistance and oxidation resistance,									

ER310

									ER316				
Standard:				Chemic	al Compos	ition %							
AWS A 5.9 YB/T5092	С	Mn	Si	Cr	Ni	P	S	Mo	Cu				
Grade ER316	≤ 0.08	1.0 - 2.5	0.3 - 0.65	18 - 20	11 - 14	≤0.03	≤0.03	2 - 3	≤0.75				
Туре		Sp	ool (MIG)			Tube (TIG)							
Specification (MM)		0.8, 0.9,	1.0、1.2、1	1.6、2.0		1.6、2.0、2.4、3.2、4.0、5.0							
Package	\$100	/1kg S200	/ 5kg S270,S	300 / 15-20k	g 51	5kg / box 10kg / box length :1000MM							
Mechanical		Tensile	Strength M	pa		Elongation after fracture A (%)							
Properties			≥ 520			≥ 30							
Diameter (MM)	0.8			1.2	1.6	2.0		2.5	3,2				
Current (A)	70 ~ 150	100 -	200 14	0 ~ 220	50 ~ 100	100 ~ 2	200 200	~ 300	300 ~ 400				
Application	ER316 is also referred to as 2H08Cr19Ni12MoSi stainless steel welding wire. The weld metal is an austenite structure containing 19Cr - 12Ni - 2Mo. The corrosion resistance, heat resistance and crack resistance are good. The corrosion resistance of Mo to acetic acid, sulfurous acid, phosphoric acid and salt is good, especially against the pitting corrosion of chloride ions. It is mainly used in the chemical industry and power engineering structure, such as AIS316. SUS316. C18Cr-12Ni-2.5Mo (SUS316) steel. Stable arc, beautiful welding pass; It can also be used for welding high chromium steel and dissimilar steel without heat												
Notice	Surface welding of the g 2. In order Ar+2%C protect the tuny back of 3. In the w propert 4. The abo	It is mainly used in the chemical industry and power engineering structure, such as AIS316. SUS316. C18Cr-12Ni-2.5Mo (SUS316) steel. Stable arc, beautiful welding pass;											

Standard:				Chemic	al Co	mpos	ition %					
AWS A 5.9 YB/T5092	С	Mn	Si	Cr	N	li	P	S	Мо	Cu		
Grade ER316L	≤ 0.03	1.0 - 2.5 0.3 - 0.65 18 - 20			11 -	1-14 ≤0.03 ≤0.03 2-3 ≤0						
Туре		Sp	ool (MIG)					Tube (T	(G)			
Specification (MM)		0.8, 0.9	, 1.0, 1.2,	1.6、2.0		1.6, 2.0, 2.4, 3.2, 4.0, 5.0						
Package	S100	/1kg S200 /	5kg S270,S	300 / 15-201	(g	5kg / box 10kg / box length :1000MM						
Mechanical		Tensile	Strength M	pa			Elonga	ation after	fracture <i>i</i>	A (%)		
Properties		≥ 490 ≥ 30										
Diameter (MM)	0.8 1.0 1.2					.6	2.0		2.5	3.2		
Current (A)	70 ~ 150	100 ~	200 14	0 ~ 220	50 ~	100	100 ~ 2	200 200	200 ~ 300 300 ~ 400			
Application	structure and crack sulfurous beneficial Mainly us It can also treatment	ER316L is also called H03Cr19Ni12Mo2Si stainless steel wire. The weld metal is austenitic structure containing 19Cr-12Ni-Mo, which has good corrosion resistance, heat resistance and crack resistance because of the good corrosion resistance of Mo to acetic acid, sulfurous acid, phosphoric acid and salts. In particular, resistance to chloride pitting is beneficial. Mainly used in the welding of stainless steel in chemical industry, such as AIS316. SUS316. It can also be used for welding of high chromium steel and dissimilar steel without heat treatment after welding. The welding of 18Cr-12Ni-Mo2 ultra-low carbon stainless steel has										
Notice -	impurit so as to its surr 2. In order Ar+2%C protect tungste 3. In the w propert 4. The aboshould	t can also be used for welding of high chromium steel and dissimilar steel without heat										

-	01	0:
ж.	 DΙ	Si

Standard:				Chemic	al Compos	sition %						
AWS A 5.9 YB/T5092	C	Mn	Si	Cr	Ni	P	S	Mo	Cu			
Grade ER316LSi	≤ 0.03	1.0 - 2.5	0.65 - 1.0	18 – 20	11 – 14	≤0.03	≤0.03	2 - 3	≤0.75			
Туре		Sp	ool (MIG)			Tube (TIG)						
Specification (MM)		0.8, 0.9,	1.0、1.2、	1.6、2.0		1.6, 2.0, 2.4, 3.2, 4.0, 5.0						
Package	S10	0 /1kg S200	/ 5kg \$270,\$	300 / 15-20k	g .	5kg / box 10kg / box length:1000MM						
Mechanical		Tensile	Strength M	lpa 💮		Elongation after fracture A (%)						
Properties			≥ 530			≥ 30						
Diameter (MM)	0.8 1.0 1.2					2.0	1	2.5	3.2			
Current (A)	70 ~ 150	0 100 -	200 14	10 ~ 220	50 ~ 100	100 ~ 2	200 200	~ 300	300 ~ 400			
Application	carbon s type. Be the arc i propertio Welding good res	ER316LSi, also known as H03Cr19Ni12Mo2Si1 stainless steel wire, is an ultra-low carbon stainless steel MIG welding material, and its deposited metal is ultra low carbon type. Because of the addition of Si, the fluidity is better, the shape is more beautiful, the arc is stable, the spatter is little, and the excellent comprehensive mechanical properties are obtained. Welding 18Cr-12Ni-Mo2 ultra-low carbon stainless steel has good welding process and good resistance to intergranular corrosion. Because of the increase of Si content, welding constains and fluidity of motters gold are better.										
Notice	Surfac weldin of the 2. In orde Ar+2% protec the turn back o 3. In the proper 4. The ab Users											

									ER321			
Standard:	6			Chemica	al Compos	ition %						
AWS A 5.9 YB/T5092	С	Mn	Si	Cr	Ni	Р	S	Мо	Ti			
Grade ER321	≤0.08	1.0 - 2.5	0.3 - 0.65	18.5 - 20.5 9 - 10.5		≤0.03	≤0.03	≤0.75	9×C-1.00			
Туре		Sp	ool (MIG)			Tube (TIG)						
Specification (MM)		0.8, 0.9	, 1.0, 1.2,	1.6, 2.0		1,6、2.0、2.4、3.2、4.0、5.0						
Package	S100	/1kg S200 /	5kg S270,S	300 / 15-20k	g 5	5kg / box 10kg / box length :1000MM						
Mechanical		Tensile	Strength M	lpa		Elongation after fracture A (%)						
Properties	1		≥ 530			≥ 35						
Diameter (MM)	0.8	1.	.0	1.2	1.6	2.0		2.5	3.2			
Current (A)	70 ~ 150	100 -	200 14	0 - 220	50 ~ 100	100 ~ 2	200 200	~ 300	300 ~ 400			
Application	ER321 is also known as H08Cr19Ni10Ti. The weld metal of H08Cr19Ni10Tihas good mechanical properties by adding titanium to sequester carbon to prevent the intergranular precipitation of chromium carbide and to improve the intergranular corrosion resistance of the weld. For the welding of 1Cr18Ni9Ti austenitic stainless steel and 20Cr-10Ni-Ti steel, the resistance to intergranular corrosion is greatly improved due to the addition of Ti.											
Notice	Surface welding the gro 2. In order Ar+2%C protect tungste of weld 3. In the w propert 4. The abo											

									ER347			
Standard:				Chemic	al Compos	ition %						
AWS A 5.9 YB/T5092	C	Mn	Si	Cr	Ni	P	S	Mo	Nb			
Grade ER347	≤0.08	1.0-2.5	0.3 - 0.65	19 - 21.5	9 – 11	≤0.03	≤0.03	≤0.75	10×C-1.0			
Туре		Sp	ool (MIG)		Tube (ΠG)							
Specification (MM)		0.8, 0.9,	1.0、1.2、	1.6、2.0		1.6, 2.0, 2.4, 3.2, 4.0, 5.0						
Package	S100	/1kg S200	/ 5kg S270,S	300 / 15-20k	g 5	5kg / box 10kg / box length :1000MM						
Diameter (MM)	0.8	1	.0	1.2	1.6	2.0 2.5			3.2			
Current (A)	70 ~ 150	100 -	- 200 14	0 ~ 220	50 ~ 100	100 ~	200 200	~ 300	300 ~ 400			
Application	ER347 is also known as H08Cr20Ni10Nb. The main composition is 19Cr-11Ni-Nb, which can be welded in full position. NB is added on the basis of SUS308. It can effectively improve the corrosion resistance, especially the resistance to grain boundary corrosion, the resistance to intergranular corrosion of welding pass can be enhanced, and has excellent high temperature strength. Especially suitable for heat resistant steel welding. Excellent welding performance-smooth wire feeding, stable arc, beautiful shape, few spatter. Often used in food machinery, such as 07Cr19Ni11Ti (SUS321). 07Cr18Ni11Nb (SUS347) .											
Notice	Surfac weldin of the control of the	e impurition of the control of the c	es such as of as to predict of as to pre	oil, rust a vent blowl undings sl chanical prow rate 20-ield gas flog 3~5 mm; welding li ance of we s, condition welding pr	surface should water shoole, crack hould be poroperties of 25 L/min for the should speed wind speed should metal, a sins and speed s	and so on dished with f welding : or MIG well 5 L/min ,A limit ≤ 1.0 directly af nd should cification:	horoughly during we the metallic seam, sugging. For received the metallic males are for received to the metallic males are for received th	removed slding. The gloss. gest proteful weldir ~3 mm; on protecute and care attentions of the graph of the	in the e surface ext gas 19, suggest Length of tion at the 11 tion to.			

									LICTIO			
Standard: AWS A 5.9				Chemica	l Compos	ition %						
YB/T5092	C	Mn	Si	Cr	Ni	P	S	Мо	Cu			
Grade ER410	≤0.12	≤ 0.6	≤ 0.5	11.5 - 13.5	≤ 0.6	≤0.03	≤0.03	≤0.75	9×C-1.00			
Туре		Spo	ol (MIG)				Tube (TI	(G)				
Specification (MM)		0.8, 0.9,	1.0 、1.2 、	1.6、2.0		1.6,	2.0、2.4、3	.2, 4.0, 5	.0			
Package	S100 /	1kg S200 / !	5kg S 270,5	5300 / 15-20k	g 5	kg / box	10kg / box	length:	1000MM			
Diameter (MM)	0.8	1.0)	1.2	1.6	2.0 2.5			3.2			
Current (A)	70 ~ 150	100 ~	200 1	40 ~ 220	50 ~ 100	100 ~ 2	200 200	~ 300	300 ~ 400			
Application	ER410 is also called H12Cr13. The main component is 13Cr. it is martensitic stainless steel MIG wire, which can be welded in all position. There was little splash. It is often used in water power station and valve, such as 12Cr13SUS41010. It can be used to weld 410 or 420 series stainless steel. It has high hardening property and high temperature oxidation resistance. Corrosion resistance, used in oil scouring and chemical industry and surfacing repair.											
Notice	Surface welding of the growth of the growth of the growth of the trung back of the t	impurities place, so a cove and to obtain q 2 and shie gas pure A sten pole welding ar elding proces and cra we welding nould evaluate to the country of the	such as as to pre- its surror good med agas file r and shi is about sea . cess, the ck resist methods uate the v	ding wire si oil, rust and vent blowho undings sho chanical pro- ow rate 20-2 eld gas flow 3 ~ 5 mm; wi welding lin ance of welding s, condition- welding pro- ire for the fo	d water should, crack a uld be polition of v 5 L/min for v rate 8-15 ind speed like e energy did metal, and s and speccess accorr	ould be thond so on dished with welding se MIG welding L/min ,Arc imit ≤ 1.0 rectly affed should bifications adding to the	aroughly re luring weld metallic gl am, sugge ng. For TIC length 1~ n/s, argon cts the me re paid more are for refe eir own wel	moved in ling. The loss. st protects 3 welding 3 mm; Le protection chanical re attention	t gas ,suggest ngth of on at the			

									ER430			
Standard: AWS A 5.9				Chemica	l Composi	ition %						
YB/T5092	С	Mn	Si	Cr	Ni	P	S	Мо	Cu			
Grade ER430	≤0.10	≤ 0.6	≤ 0.5	15.5 - 17.0	≤ 0.60	≤0.03	≤0.03	≤0.75	10×C-1.0			
Туре		Spo	ool (MIG)			Tube (TIG)						
Specification (MM)		0.8, 0.9,	1.0、1.2、	1.6, 2.0		1.6、2.0、2.4、3.2、4.0、5.0						
Package	S100	1kg S200 /	5kg S270,	S300 / 15-20kg	51	5kg / box 10kg / box length:1000MM						
Diameter (MM)	0.8 1.0 1.2				1.6	2.0 2.5			3.2			
Current (A)	70 ~ 150	100 ~	200 1	40 ~ 220	50 ~ 100	100 ~ 2	200 200	~ 300	300 ~ 400			
Application	MIG wire, wire feedi splash. It is suital vessels, a	which car ng is smo ole for we nd is ofte	to be weld oth, the lding 130 in used fo	r17, is mainled in all po arc is stable Cr or 17Cr m or welding o 7 (SUS430)	sition. The , and the s artensitic s f wear-resi	welding p hape is be stainless s stant and	erformanc eautiful. Th steel,espec corrosion	e is exce here was hially for resistant	llent, the little nitric acid			
Notice	Surface welding of the g 2. In order Ar+2%O protect the tung back of 3. In the w properti 4. The abo Users si	impuritie place, so roove and to obtain 2 and shi gas pure sten pole welding a elding pr es and cr ve weldinhould eva	s such a as to prilits surre good meeld gas f Ar and si is about rea. Cocess, thack resis g method luate the	elding wire soil, rust an event blowhoundings sheechanical properties of the soil of the s	nd water shiple, crack hould be poroperties of 25 L/min for the shiple wind speed the energy of the energy of the shiple wind speed the energy of the shiple wind speed the energy of the shiple will be shiple with the	ould be to and so or dished will will will will so or mild welding or MIG weld Limit ≤ 1.4 directly afond should cification right of the state of t	horoughly a during we the metallic seam, sugging. For rc length 10 m/s, arg	removed slding. The gloss. gest protein weld in weld in weld in weld in weld in weld in well and in w	in the se surface ect gas ng, suggest Length of ction at the al ation to.			

ER430

Standard:				Chemica	al Compos	ition %						
AWS A 5.9 YB/T5092	С	Mn	Si	Cr	Ni	P	S	Мо	N			
Grade ER2209	≤0.03	0.5 - 2.0	≤ 0.90	21.5 - 23.5	7.5 - 9.5	≤0.03	≤0.03	≤0.75	0.08 - 0.2			
Туре		Sp	ool (MIG)			Tube (TIG)						
Specification (MM)		0.8, 0.9	, 1.0 , 1.2	. 1.6, 2.0		1.6,	2.0, 2.4, 3	.2, 4.0, 5	.0			
Package	S100	/1kg S200 /	5kg S270,	S300 / 15-20k	g 5	5kg / box 10kg / box length :1000MM						
Diameter (MM)	0.8	1.	0	1.2	1.6	2.0		2.5	3.2			
Current (A)	70 ~ 150	100 ~	200 1	40 ~ 220	50 ~ 100	100 ~ 2	200 200	~ 300	300 ~ 400			
Application	austenitic deposited comprehe of ferrite It has exc shape and It is often welding of	ER2209 is also called H03Cr22Ni8Mo3N. The main composition is 22Cr-9Ni-3Mo-N. It is an austenitic ferrite dual phase stainless steel MIG wire. Full-position welding. Because the deposited metal contains about 40% ferrite, the deposited metal has both the comprehensive properties of austenitic stainless steel and the stress corrosion resistance of ferrite stainless steel. Thus it has become a new material in petrochemical industry. It has excellent welding workability, such as smooth wire feeding, stable arc, beautiful shape and few spatter. It is often used in petrochemical, shipbuilding and other industries, corresponding to the welding of steel 022Cr22Ni5Mo3N (SUS2205). Also suitable for 22Cr-9Ni-Mo3 duplex stainless steel such as UNS31803.										
Notice	Surface welding the gro 2. In orde Ar+2% protect the tun back of 3. In the v proper! 4. The abs Users s	e impuritie g place, so ove and it: r to obtain 02 and shie gas pure a gsten pole f welding a welding pro- ties and cri- ove weldin should eva	s such as as to pre s surroun good me eld gas fil Ar and sh is about rea. ocess, the ack resist g method luate the	Iding wire single oil, rust and vent blowho dings should chanical properties of the control of t	d water should be comed and be polish operties of 5 L/min for wrate 8-15 ind speed I be energy did metal, and sand speed saccor	ould be the nd so on d ed with me welding se MIG weldi L/min ,Arc imit ≤ 1.0 r irectly affe d should b ifications a ding to the	roughly re uring weld etallic glos am, sugge ng. For TIC length 1~ n/s, argor cts the me e paid mo are for refe ir own wel	emoved in ling. The sis. est protect G welding 3 mm; Le protection echanical re attention	the surface of a gas suggest ngth of on at the on to.			

E6013			E70
	Standard:	Chamical Composition W	

										E6013		
Standard:				Cher	nical Co	mpositio	n %					
AWS A5.1 AWS A5.1M		С	Mn	Si	S	P	Ni	Cr	Mo	V		
Grade E6013	Spec	≤0.2	≤1.2	≤1.0	≤0.035	≤0.04	≤ 0.3	≤0.2	≤0.3	≤0.08		
Glade LOV 13	Typical	0.065	0.39	0.22	0.016	0.022	0.022	0.03	0.003	0.01		
Specification (MM)		1.6、2.0	2.4, 3.2	, 4.0, 5.0	X ray detection grade:							
Package			5 kgs/p	lastic bag in	a color box	, 20kgs/cart	on, 1 ton in	a pallet				
				Tensile Strength Mpa		Yield Strength Mpa		Elongation %) 0℃		
Mechanical Properties	Specifi	Specification		≥ 430		≥ 330		≥ 16		47		
	Турі	ical	41	480		90	2	8	9	0		
Diameter(MM)	2.	0	2.5		3.2		4.0		5	.0		
Length(MM)	30	0	300		350		400		4	00		
Current (A)	40~	70	50	90	80~	130	130	210	180	230		
Specification	welding	40~70 50~90 80~130 130~210 180~230 It is a kind of carbon steel electrode with titania type coating. AC/DC. All-position welding. It has excellent welding performance, excellent operating performance, easy reignition, stable arc and beautiful appearance of weld.										
Application			ng low-car metic weld									

Standard:				Cher	nical Co	mpositio	n %					
AWS A5.1 AWS A5.1M		C	Mn	Si	Cr	Ni	Мо	٧	S	Р		
Grade E7018	Spec	≤0.15	≤1.6	≤0.9	≤0.2	≤0.3	≤ 0.3	≤0.08	≤0.035	≤0.035		
Glade E7 V To	Typical	0.075	1.12	0.48	0.03	0.012	0.006	0.015	0.009	0.019		
Specification (MM)		1.6、2.0	2.4、3.2	, 4.0, 5.0	X ray detection grade: 1							
Package			5 kgs/p	lastic bag in	a color box	, 20kgs/cart	on, 1 ton in	a pallet				
			Tensile Str	ength Mpa	Yield Stre	ngth Mpa	Elong	ation %	KV2(J) -30°C		
Mechanical Properties	Specifi	Specification		≥ 490		≥ 400		≥ 20		20		
	Typical		580		490		32		150			
Diameter(MM)	2.	0	2.5		3.2		4	.0	5	.0		
Length(MM)	30	0	300		350		400		4	00		
Current (A)	40	70	60~100		80~120		110~190		180 ~ 230			
Specification	coating			el electrod						4.00		
			must be	baked un mpleted.	der 300~	350 € for	an hour	before we	elding and	used		
Application	2. The st	ains on	the weldn	nents, suc	h as rus	t, etc, mu	st be cle	ared away	y before w	velding.		
	3. When	welding,	short are	must be	used an	d stringer	bead is	suitable.				
	4. Used	for weldi	ng carbo	n steel an	d low-all	oy steel s	tructures	s, such as	s 16Mn, et	c.		

										E6011		
Standard:				Cher	nical Co	mpositio	n %					
AWS A5.1 AWS A5.1M		С	Mn	Si	Cr	Ni	Мо	٧	S	Р		
Grade E6011	Spec	≤0.20	≤1.2	≤1.0	≤0.2	≤0.3	≤0.3	≤0.08	***			
Grade Lovii	Typical	0.075	1.12	0.48	0.03	0.012	0.006	0.015	0.009	0.019		
Specification (MM)		1.6、2.0	2.4、3.2	, 4.0, 5.0	X ray detection grade: II							
Package			5 kgs/p	lastic bag in	a color box	, 20kgs/cart	on, 1 ton in	a pallet				
			Tensile Str	ength Mpa	Yield Stre	ngth Mpa	Elong	ation %	KV2(J) -30°C			
Mechanical Properties	Specification		≥ 430		≥ 330		≥ 22		≥ 27			
	Typical		580		4	490		32	1	50		
Diameter(MM)	2.	0	2,5		3.2		4.0		5	.0		
Length(MM)	30	0	300		350		400		400			
Current (A)	40~	70	40	~80	75~125		110~170		140~215			
Specification	coating			el electrod		1115	THE LOS			***		
		1. The electrodes must be baked under 300~350 C for an hour before welding and used as soon as baking is completed.										
Application	2. The s	tains on	the weld	ments, su	ch as rus	st, etc, mu	ist be cle	eared awa	y before	welding.		
	3. When	welding	, short ar	c must be	used an	d stringe	r bead is	suitable.				
	4. Used	for weld	ing carbo	n steel ar	nd low-al	loy steel	structure	s, such a	s 16Mn, e	tc.		

										E7016			
Standard:				Cher	nical Co	mpositio	n %						
AWS A5.1 AWS A5.1M		С	Mn	Si	Cr	Ni	Mo	V	S	Р			
Grade E7016	Spec	≤0.15	≤1.6	≤0.75	≤0.2	≤0.3	≤ 0.3	≤0.08	≤0.035	≤0.035			
GIAGE E/VIV	Typical	0.075	1.12	0.48	0.03	0.012	0.006	0.015	0.009	0.019			
Specification (MM)		1.6, 2.0	2.4、3.2	4.0、5.0			X ray de	tection gr	ade: I				
Package		5 kgs/plastic bag in a color box, 20kgs/carton, 1 ton in a pallet											
		Tensile Strength Mpa Vield Strength Mpa Elongation % KV2(J) -30°C											
Mechanical Properties	Specifi	cation	≥ 490		≥ 400		≥ 22		≥ 27				
	Тур	ical	580		4	90	3	12	1	50			
Diameter(MM)	2.	0	2.5		3	.2	4	.0	5	.0			
Length(MM)	30	10	300		350		400		400				
Current (A)	40	70	60	100	80~	120	110	~190	180~230				
Specification	coating			el electrod / can be in									
				baked un impleted.	der 300~	350 C for	an hour	before we	elding and	d used			
Application	2. The st	ains on	the weldr	nents, suc	ch as rus	t, etc, mu	st be cle	ared away	before v	velding.			
	3. When	welding	short ar	c must be	used and	d stringer	bead is	suitable.					
	4. Used	for weldi	ng carbo	n steel an	d low-all	oy steel s	tructures	s, such as	16Mn, et	tc.			



E308L-16

Standard:	Chemical Composition %												
AWS A5.4 AWS A5.4M	С	Mn	Si	Р	s	Ni	Cr	Мо	Cu				
Grade E308L-16	≤0.04	0.50~2.50	≤1.0	≤0.04	≤0.03	9.0 11.0	18.0~21.0	≤0.75	≤0.75				
Specification (MM)		1.6、2.0、2.4、3.2、4.0、5.0											
Package	Ĭ	5 kgs/plastic bag in a color box, 20kgs/carton, 1 ton in a pallet											
Mechanical		Tensile Strength Mpa Elongation %											
Properties	Specifi	cation				≥ 30							
Specification	Cr19Ni1 stainles	6 welding e 0 stainless s steel stru- anufacture	steel stri ctures wi	uctures, ar hose work	nd also us ing tempe	ed for 06C rature is lo	r18Ni11Ti c ower than 3	orrosion- 00°C. Mai	resistant nly used				
Application	carbon than or welding	308L-16 welding electrode is a kind of Titanium calcium type coating with ultra-low arbon Cr19Ni10 stainless steel electrode. Carbon content of deposited metal is less can or equal to 0.04%. The intergranular corrosion resistance is good. Excellent elding performance and heat resistance, high strength coating, the porosity esistance is good. AC/DC both can be applied.											

									E309L-16				
Standard:	Chemical Composition %												
AWS A5.4 AWS A5.4M	С	Mn	Si	Р	S	Ni	Cr	Mo	Cu				
Grade E308L-16	≤0.04	0.50~2.50	≤1.0	≤0.04	≤0.03	12.0 14.0	22.0~25.0	≤0.75	≤0.75				
Specification (MM)				1.6, 2.0	, 2.4, 3.2	4.0、5.0							
Package		5 kgs/plastic bag in a color box, 20kgs/carton, 1 ton in a pallet											
Mechanical			Ter		Elongation %								
Properties	Specif	ication				≥ 30							
Specification	mechan	16 is a kind of the lical property ance and posterior beth can be	ies and i prosity re	ntergranul esistance.	ar corros	ion resista	nce. It has	good wel	ding				
Application	Used fo	r welding th	e corros	ion resista	nt stainle	ess steel st	ructure.						

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E312L-16

E 3		16

Standard:	Chemical Composition %												
AWS A5.4 AWS A5.4M	C	Mn	Si	Р	S	Ni	Cr	Mo	Cu				
Grade E316L-16	≤0.04	0.50~2.50	≤1.0	≤0.04	≤0.03	11.0 - 14.0	17.0~20.0	2.0 - 3.0	≤0.75				
Specification (MM)		1.6、2.0、2.4、3.2、4.0、5.0											
Package		5 kgs/plastic bag in a color box, 20kgs/carton, 1 ton in a pallet											
Mechanical		Tensile Strength Mpa Elongation %											
Properties	Specif	ication				≥ 30							
Specification	stainles 0.04%. and the	16 is a kind of ss steel elected that excell the porosity resubboth can be	trode. Ca ent heat sistance.	arbon cont resistance	ent of dep , the corr	osited met osion resis	tal is less t stance, the	han or equ crack resi	ial to stance				
Application	steel st	or welding of tructure, in a I treatment, s	ddition,	it is applie	d to weld	the steel t	hat cannot	be proces	sed with				

	A second of the second of
Chaminal Composition 9/	
Chemical Composition %	

Standard:				Chemica	I Compo	sition %								
AWS A5.4 AWS A5.4M	С	Mn	Si	P	S	Ni	Cr	Mo	Cu					
Grade E312L-16	≤0.15	0.50 ~ 2.50	≤1.0	≤0.04	≤0.03	8.0 10.5	28.0~32.0	≤0.75	≤0.75					
Specification (MM)				1.6、2.0	. 2.4. 3.2.	4.0, 5.0								
Package		5 kgs/plastic bag in a color box, 20kgs/carton, 1 ton in a pallet												
Mechanical		Tensile Strength Mpa Elongation %												
Properties	Specif	ication		≥ 660				≥ 22	2					
Specification	ferritic- resistar	is a lime til austenitic d nce. It is sui m steels, as	uplex we table for	eld metal w welding C	ith around 29Ni9 ca	d 40% ferri	te so it has	excellen	t crack					
Application		or welding h ilar steel, el		oon steel, t	ool steel,	high temp	erature stee	el, armor	steel,					

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Ту	pe				Che	mical Co	mpositio	n			
AWS A5.18	GBT8110 /2008	С	Mn	Si	P	S	Ni	Cr	Mo	V	Cu
ER70S-6 ER50-6		0.06 ~ 0.15	1.40 ~ 1.85	0.80 ~ 1.15	≤ 0.025	≤ 0.035 ≤ 0.025	≤ 0.15	≤ 0.15	≤ 0.15	≤ 0.03	≤ 0.50
SG2 / G3Si1	EN440 G46-3	0.06 ~ 0.14	1.30 ~ 1.60	0.70 ~ 1.00	≤ 0.025	≤ 0.025	≤ 0.15	AI≤0.02	≤ 0.15	Ti + Zr	≤ 0.15
SG3 / G4Si1	15014341	0.06 ~ 0.14	1.60 ~ 1.90	0.80 ~ 1.20	≤ 0.025	≤ 0.025	≤ 0.15	Al≤0.02	≤ 0.15	Ti + Zr	≤ 0.15
ER70S-3		0.06 ~ 0.15	0.90 ~ 1.40	0.45 ~ 0.75	≤ 0.025	≤ 0.035	≤ 0.15	≤ 0.15	≤ 0.15	≤ 0.03	≤ 0.50
ER70S-G	Sample	0.07 ~ 0.10	1.51 ~ 1.80	0.65 ~ 1.00	≤ 0.035	≤ 0.035	0	Ti .15 ~ 0.20		y : As agreed between buyer (Norm	

Note: AWS A5.18: Any copper plating layer on the filler wire, plus the copper with the metal itself, shall not exceed the maximum of 0.50% (including copper plating).

EN440 : If Cr \leq 0.15, Cu \leq 0.35 and V \leq 0.03 are not specified. The residual copper content in the steel plus the total coating should not exceed 0.35% (m/m).

Ту	pe		Mechanical	Properties	
AWS A5.18	GBT8110	Tensile Strength Mpa	Yield Strength Mpa	Elongation A (%)	Impact Value KV2 (J) -30°C
ER70S-6 ER50-6	ER50-6	≥ 480 ≥ 500	≥ 400 ≥ 420	≥ 22	≥ 27
5G2 / G3Si1	EN440 G46-3	530 ~ 680	≥ 460	≥ 20	≥ 47 KV2 (J) -40°C
SG3 / G4Si1	ISO14341				≥ 47
ER70S-3		≥ 480	≥ 400	≥ 22	-20°C ≥ 27
ER70S-G	ERSO-G	≥ 480	≥ 400	≥ 22	Actually: As agreed between supplieand buyer (Normal ER70S-6 + Ti)

Note:For ER50-3 / ER50-6 wire, tensile resistance and yield may be reduced by every 10 Mpas when elongation past the minimum value every 1%,, but the minimum tensile resistance value shall not be less than 480 Mpa and the yield shall not be less than 400 Mpa.

Ту	pe				Che	mical Co	mpositio	n			
AWS AS 20	GBT 10045 /2001	С	Mn	Si	P	S	Ni	Cr	Mo	٧	Cu
E71T-1 E71T-1C E71T-1M						<0.02	0.03 ≤0.50				
E71T-G E71T-GS		≤ 0.12		≤ 0.90 ≤ 0.60							
	E500T-1 E500T-1M E501T-1 E501T-1M		24.95		20.00			×0.00	20.00	20.00	≤ 0.35
	E500T-G E501T-G	≤ 0.18	≤1.75		≤ 0.03	2 0.03		≤ 0.50 ≤ 0.20	≤ 0.30	≤ 0.08	
E717-11		≤ 0.30									
E717-11	E500T-11 E501T-11										

Note: symbols
The third number X after E, indicates the welding position, where "0" means Flat and transverse welding,"1" means all position, and the letter C indicates is CO2 or of a self-protective type;M indicates that the protective gas is 75~80% ar and rest CO2; Aluminum composition requirement is limited to self-shielded flux-cored wire (E71T-G / E71T-GS / E71T-11---Al ≤ 1.80).

Ту	pe		Mechanical	Properties	
AWS A5.20	GBT 10045 /2001	Tensile Strength Mpa	Yield Strength Mpa	Elongation A (%)	Impact Value KV2 (J) -30°C
E71T-1 E71T-1C E71T-1M	E500T-1 E500T-1M E501T-1 E501T-1M E500T-G E501T-G	490 ~ 670	≥ 390	≥ 22	227
E71T-GS		≥ 490			
E717-11	E500T-11 E501T-11	490 ~ 670	≥ 390	≥ 20	

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Ту	pe				Chemica	al Compo	sition			
AWS A5.1	AWS AS:1M	С	Mn	Si	Р	S	Ni	Cr	Mo	V
E6011 E6013	E4311 E4313	≤ 0.20	≤ 1.20	≤ 1.00	***	***	≤ 0.30	≤ 0.20	≤ 0.30	≤ 0.08
E7016 E7018	E4916 E4918	≤ 0.15	≤ 1.60	≤ 0.75	≤ 0.035	≤ 0.035	≤ 0.30	≤0.20	≤ 0.30	≤ 0.08
E7018M	E4918M	≤ 0.12	0.40 ~ 1.60	≤ 0.80	≤ 0.030	≤ 0.020	≤ 0.25	≤0.15	≤ 0.35	≤ 0.05
E308 -16 E308L-16	E308 -17 E308L-17	≤ 0.08 ≤ 0.04	0.50 ~ 2.50	≤ 1.00	≤ 0.04	≤ 0.03	9.0 - 11.0	18.0 ~ 21.0	≤ 0.75	Cu ≤ 0.75
E309 - 16 E309L-16	E309 - 17 E309L-17	≤ 0.15 ≤ 0.04	0.50 ~ 2.50	≤ 1.00	≤ 0.04	≤ 0.03	12.0 ~ 14.0	22.0 ~ 25.0	≤ 0.75	Cu ≤ 0.75
E316-16 E316L-16	E316 - 17 E316L-17	≤ 0.08 ≤ 0.04	0.50 ~ 2.50	≤ 1.00	≤ 0.04	≤ 0.03	11.0 - 14.0	17.0 - 20.0	2.0 ~ 3.0	Cu ≤ 0.75
E312-16	E312-17	≤ 0.15	0.50 ~ 2.50	≤ 1.00	≤ 0.04	≤ 0.03	8.0~10.5	28.0 - 32.0	≤ 0.75	Cu ≤ 0.75

Note: E7016 and E7018 components of Mn+Ni+Cr+Mo+V ≤ 1.75; stainless steel electrode code interpretation - example E308-XX (E308-15/E308-16/E308-17/E308-26.....), the prefix code is divided into -1/-2/-4, representing the welding position; the suffix code is divided into -5/-6/-7, in which 5 represents the alkalinity, 6 represents rutile, and 7 represents the titanic acid type.

Ту	/pe		Mec	hanical Properti	es		
AWS A5.1	AWS A5.1M	Tensile Strength Mpa	Yield Strength Mpa	Elongation A (%)	Impa KV2 (n -45°C	act Value KV2 (Ji-30°C	Radio graphics
E6011	E4311	≥ 430	≥ 330	≥ 22		≥ 27	Grade II
E6013	E4313	≥ 430	≥ 330	≥ 17	***	***	Grade II
E7016	E4916	≥ 490	≥ 400	≥ 22	≥ 27	≥ 27	
E7018	E4918	≥ 490	≥ 400	≥ 22	≥ 27	≥ 27	Grade I
E7018M	E4918M	Normal ≥ 490	370 - 500 2.4MM / 370 - 530	≥ 24	***	≥ 67	
E308-XX E308L-XX E309-XX E309L-XX E316-XX E316L-XX		≥ 550 ≥ 520 ≥ 550 ≥ 520 ≥ 520 ≥ 490		≥ 30			
E312- XX		≥ 660		≥ 22			

Note:

E6011 has no special requirements for heat preservation furnace and drying; Environmental temperature: 20 ~ 40 $\,$ C; The requirement of E6013 heat preservation furnace is higher than the ambient temperature [10 $\,$ C ~ 20 $\,$ C]; Drying requires drying at least 1 hour at 120 $\,$ C 150 $\,$ C; E7016/E7018/E7018M requirements for heat preservation furnace and drying; Environmental temperature: [30 $\,$ C ~ 140 $\,$ C]; Drying requires drying at least 1 ~ 2 hours at 260 $\,$ C ~ 425 $\,$ C;

Ту					Cher	nical Co	mpositio	1				
AWS A5.10 /2012	G8T10858 /2008	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al	Oth	
ER1070	Sal1070	≤ 0.20	≤ 0.25	≤ 0.04 ≤ 0.03	≤ 0.03	≤ 0.03		≤ 0.04 ≤ 0.07	≤ 0.03	≥ 99.70	-	
FR1100	FR1100	Si + Fe	≤ 0.95	0.05 0.20	≤ 0.05	Be≤	0.0003	≤ 0.10		≥ 99.00	≤0.05	≤0.15
ER4043	F4043 Sal4043	4.5 6.0	≤ 0.80	≤ 0.30	≤ 0.05	≤ 0.05	Be ≤ 0.0003	≤ 0.10	≤ 0.20	余量Rest	≤0.05	≤0.15
ER5356	5356	≤ 0.25	≤ 0.40	≤ 0.10	0.05 0.20	4.5 - 5.5	0.05 0.20 Be ≤ 0.0003	≤ 0.10	0.06 0.20			
ERSIBE	Sal5183	≤ 0.40	≤ 0.40	≤ 0.10	0.05 1.00	4.3 - 6.2	0.05 0.25 Be < 0.0003	≤ 0.25		余量Rest		

Note: The content of Be ≤ 0.0008 in the AWS 1999 edition, Be ≤ 0.0003 in the AWS 2012 edition, AWS ER1188 AI ≥ 99.88. American standard, there are ER (E- electrode wire) and R (filler wire), example: ER1070 and R1070. In fact, they are divided into two categories: filler wire and both. As to ER5356,when Cr--0.05 – 0.20. Be ≤ 0.0005;when Cr50.30. Be ≤ 0.0003.ISO18273-2004 is the same chemical as American standard,Be of ER6356 and ER5183 can choose ≤ 0.0003 or ≤ 0.0005.

Туре				Chemic	al Compos	ition			
AWS A5.9M 2012	C	Cr	Ni	Mo	Mn	Si	P	S	Cit
ER308 ER308Si	≤ 0.08					0.30 0.65 0.65 1.00			
ER308L ER308LSi	≤ 0.03	19.5 22.0	9.0 - 11.0			0.30 - 0.65 0.65 - 1.00			
ER309 ER309Si	≤ 0.12			≤ 0.75		0.30 - 0.65 0.65 - 1.00			
ER309L ER309LSi	≤ 0.03	23.0 25.0	12.0 - 14.0			0.30 0.65 0.65 1.00			
ER316 ER316Si	$\begin{array}{c} 19.5 - 22.0 & 9.0 - 11.0 \\ \leq 0.03 & \leq 0.12 \\ \leq 0.03 & \leq 0.08 \\ \leq 0.08 & 18.0 - 20.0 & 11.0 - 14.0 \\ \leq 0.03 & \leq 0.15 & 28.0 - 32.0 & 8.0 - 10.6 \\ \end{array}$	0.30 0.65 0.65 1.00							
ER316L ER316LSi	≤ 0.03	18.0 - 20.0	11.0 - 14.0	2.0 ~ 3.0		0.30 0.65 0.65 1.00	≤ 0.03	≤ 0.03	≤ 0.75
ER312	≤ 0.15	28,0 32.0	8.0 ~ 10.5			0.30 ~ 0.66			
ER347	≤ 0.08	18.0 - 20.0 11.0 - 14.0 2.0 - 3.0 0.03 0.15 28.0 - 32.0 8.0 - 10.5 ≤ 0.75	0.30 - 0.65						
ER2209	≤ 0.03	21.5 23.5	7.5 - 9.5	2.5 - 3.5	0.5 2.0 N-0.5 2.0	≤ 0.90			
ER430	≤ 0.10	15.5 17.0	≤ 0.60	≤ 0.75	≤ 0.60	≤ 0.50			

Mechanical P	roperties
Tensile Strength Mpa	Elongation A (%)
≥ 550	
≥ 620	
≥ 550	≥ 30
≥ 520	
≥ 520	
≥ 490	
≥ 660	≥ 22
≥ 520	≥ 30
≥ 690	≥ 20
≥ 450	≥ 20
	≥ 550 ≥ 520 ≥ 550 ≥ 520 ≥ 520 ≥ 490 ≥ 660 ≥ 520 ≥ 690

Aluminum Filler Alloy Chart

Base Alloy	Filler	1060, 1070 1080, 1350	1100	2014 2036	2219	3003 ALCLAD3003	3004
Character	istics	J R D C T M	JRDCTM	JRDCTM	J R D C T M	JRDCTM	JRDCT
319. 0, 333. 0 354. 0, 355. 0	2319 4043	BAAAAA	BAAAAA		BAAAAA	ВВАЛАЛ	BBAAA
C355. 0, 380. 0	4145	A. S. AMERICAN VIOLENCE CARRY	DESCRIPTION OF THE PROPERTY OF	ALDE UNESCOON	STATE OF THE PROPERTY OF THE	ААВААА	000000000000000000000000000000000000000
413. 0, 443. 0 444. 0, 356. 0	4043	A A A A A	A A A A A A	BBAAAA	BBAAAA	A A A A A A	A A A A A
A356. 0, 359. 0 A357. 0	4145	AABBA	AABBA	AABAA	AABAA	AABBA	
	4043 4145	AACAA	AACAA	B B A A A A A B A A	B B A A A A A B A A	ABCAA	A D C B A
7005, 7021	5183	BABA A	BABA A			BABA A	BABA
7039, 7046 7146, 710. 0	5356	BAAA A	BAAA A			BAAA A	ввал
711.0	5554						CCAAA
	5556	BABA A	BABA A			STREETS OF	BABA
	5654		11011	0.0.1.1.1	D D 4 4 4	9-10-00-00-00-00-00-00-00-00-00-00-00-00-	CCAA
	4043 4145	A A C A A A A D B A	A A C A A A A D B A	B B A A A A A B A A	B B A A A A A B A A	100 - 100 -	A D C A A B C D B A
6061	5183	BAB A	BAB A	AADAA	AADAA		BAB
6070	5356	BAA A	BAA A				BBA
	5556	BAB A	B A B A				ВАВ
	4043	AACAA	AACAA	BBAAA	BBAAA	ABCAA	ADCAA
6005, 6063	4145	AADBA	AADBA	AABAA	AABAA	AADBA	BCDBA
6101, 6151 6201, 6351	5183	BAB A	BAB A			BAB A	ВАВ
6951	5356	BAA A	BAA A			B A A A	ВВА
	5556	BAB A	B A B A			B A B A	ВАВ
	4043	ABCCA	ABCCA			ABCCA	ADCCA
	5183	BABB A	BABB A			BABB A	BABB
5454	5356	BAAB A	BAAB A			BAAB A	BBAB
	5554	CAAAAA	CAAAAA			CAAAAA	CCAAA
	5556	BABB A	BABB A				BABB
	4043	ABCC	ABCC				ADCC
511. 0, 512. 0	5183		BABB A				BABB
513. 0, 514. 0	5356	BAAB A	BAAB A			Decision of the second second	BBAB
5154, 5254 535. 0	5554	CAAA A	CAAA A			100 V CO-200 (CO)	CCAA
	5556	BABB A	BABB A				BABB
	5654	CAAA B	CAAA B	8 8		CAAA B	CCAA

Aluminum Filler Alloy Chart

Base Alloy	Filler			CL/					50 50						50 56							83 56					86 56		150	13	3. (15-	0, 4,	512. 514. 525.	. 0
Characteri	stics	J	R I) C	T	M	J	R	D	C	T	M	J	R	D	C	Т	M	J	R	D	С	T M	J	R	D	C	T)	ı J	F		_	СТ	М
319. 0, 333. 0 354. 0, 355. 0 C355. 0, 380. 0	4043 4145	B A		A A		28	0.77					32	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	ž	A	1		A	A	A
413. 0, 443. 0 444. 0, 356. 0	4043		5	\ A	100	365		000	200		200		A	В	A	A	A	A	A	В	В	A	A	A	В	В	A	Ì	A	E	3 1	В	A	Α
A356, 0, 359, 0 A357, 0	5356												В	A	В	В		A	A	A	A	A	A	Α	A	A	A	I	A	1	1	A	В	Α
	4043	A	D (В	A		A	В	C	В	A		В	D	C	В	A							L										
7005, 7021	5183	В	A I	3 A		A	В	A	В	A		A	A	A	В	A		A	A	A	В	A	A	A	A	В	A	1	A	1	1	В	A	Α
7039, 7046	5356	В	B /	A		A	В	A	A	A		A	A	В	A	A		A	A	В	A	A	A	A	В	A	A	1	A	E	3 /	4	A	Α
7146, 710. 0 711. 0	5554	1000		A A		30	103				A	233	1990				A		200													Α .		A
111.0	5556	В					В					A	A					A	A	A	В	A	A	A	A	В	A	ž	A					A
	5654	C		_		В	С	_	_	_	8	A	В	_		_	_	A	_		_		_	╀	_	_			+	_	_	Α .		A
	4043			A			8	В					A	D	C	A	A		A	D	C	A		A	D	C	A		A	I) (C.	A	
	4145) B	A			В		В														ı					ı					
6061	5183	В					В						В						A					A					В					В
6070	5356	В	B A	1		A	В	A	A			A	В						A					A				- 1	B					A
	5554																A							В								A		В
	5556	В	A I	3		A	В	Α	В			Α	В					В	A	A	В	A		A					В					В
	5654	-	2000		_	-	_		46	-	S-11	9	_	77	A	-		A	_	C	-	_	В	В	_	-	_	I	3 C	_	_	-		Α
	4043			A				В					A	D	C	A	A		A	В	C	A		A	В	C	A		Α	E	3 (C	A	
enor enen	4145) B	A		20	В		В														L					ı.					
6005, 6063 6101, 6151	5183	В				35	В					135	В						A					A					В					A
6201, 6351	5356	В	B /	1		A	В	A	A			A	В						A					A					В					A
6951	5554					000	23					0.0	13.0				A		- 3					В					C					A
	5556	В	A I	3		A	В	A	В			A	В						A					A								В		A
	5654					_		45	-				_	_	A	_	2000	A	В	A	A	A	В	В	A	A	A	I	3 C	ì	1	A	R	В
	4043	A					00	B			A	ç	A				A						(3)	1	e			-		n a				10
	5183	100.00		3 B		Y.S.	В					70	A					-	A					A					A					A
5454	5356			B			В						A						A					A					A					A
	5554	100		A		137	- 80					3					A							В					B					A
	5556	В.	n I	3 B		A	В	A	В	В		A	A						A	A	В	В	A	A	A	В	В	i	A					A
	5654		10.00	1 0	_	-	,	n	c			-	_	_	A	_	_	В	-	_	_		-	+	_	_	_		B	् (1	Α .	ñ	В
	4043			C C			36	В				-	A					n		4		i.		1.	į.	n							D	p
511. 0, 512. 0	5183			B			В						A						A					A					A					В
513, 0, 514, 0 5154, 5254	5356			B			В						A					-	A					A					A					В
535. 0	5554			A		331	C						C						B					B					B					100
555500	5556	В.					В						A						A					A					A					A
	5654	C	6 /	1 A		R	С	A	A	A		В	В	C	Α	A		A	В	C	Α	A	В	В	C	A	A	- 1	3 B	(1	Α.	ñ	Α

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Aluminum Filler Alloy Chart

					A	lu	m	m	u	m	F	ш	le	r	A	Ш	U	Y 1	U	12	ır	ı												
Base Alloy	Filler		-	54	54		6	610 620	1,	60 61: 63: 51	51			60 60				1		9,	70- 71			444 356	. 0, . 0, . 0, 35!	35 A3	6. 157.	0	3	54.	0, 0, . 0,	35	5. (9
Characteri	stics	J	R	D	C 1	ГМ	J	R	D	С	T M	J	R	D	С	T	M	J	R	D	C	ГМ	J	R	D	С	T	M	J	R	D	С	T	M
319. 0, 333. 0 354. 0, 355. 0 C355. 0, 380. 0	2319 4043 4145	A	٨	A	Α /	ı A	-				A A	1																			A B			
413. 0, 443. 0 444. 0, 356. 0 A356. 0, 359. 0 A357. 0	4043 4145 A356, 0 A357, 0 5356			В		A	A	В	A		A A	Α	В		A	A		A		В	A . B .	A A	A A A	B A A	_	A B A	A A A	A B A						
7005, 7021 7039, 7046 7146, 710. 0 711. 0	4043 5183 5356 5554 5556 5664	A B A	B C A	B A A B	A A /	A A A	A A B	A B	B A A B	A A A	A A A	A	A B C A	A A B	A A A		A A A	A A B A	D A B C A	B A A B	Λ Λ Λ	A						-9:						
6061 6070	4043 4643 (1) 5183 5356 5554 5556 5654	A B C B	D A B C	C B A	B /CCA /CC	A A A	A A B C B	C C A	B A A A	A . C . C . B . C	A A A A B A	A A B	C A B B	B A A A	A A C C B	A	В											- 20						100
6005, 6063 6101, 6151 6201, 6351 6951	4043 4643 (1) 5183 5356 5554 5556 5654	A B C B	B A A A	C B A	B /C C A /	A A A	A A B C B	C A A	B A A A	A . C . C . B . C	A :																							
5454	5183 5356 5554 5556 5654	A B A	B C A	B A A B	B A / B	A A A A B												100										2						0.00

Aluminum Filler Alloy Chart

Base Alloy	Filler	1060, 1070 1080, 1350	1100	2014 2036	2219	3003 ALCLAD3003	3004
Characte	ristics	JRDCTM	JRDCTM	J R D C T M	J R D C T M	JRDCTM	JRDCTM
5086 5056	4043 5183 5356 5556	лала л	A B C B A A B A A A A A A A			A A A A A	A C C B A A B A A A B A A A
5083 5456	4043 5183 5356 5556	AAAA A	A B C B A A B A A A A A A A			A A A A A	A C C B A A B A A A B A A A A B A A
5052 5652	4043 5183 5356 5556	BAA A	A B C A A B A B A B A A A B A B A				A B C A A B A B A B A A A B A B A
5005 5050	1100 4043 4145 5183 5356 5556	A A C A A B A D B A C A B B C A B B	C B A A A A A A A A A A A A C A A A C A A A C A A A C A			CABC B	A B C A A B A B A B A B A
ALCLAD 3004	1100 4043 4145 5183 5356 5554 5556	D B A A A A A A A A A A A C A A B A D B A C A B C B C B C B	D B A A A A A A A A A C A A B A D B A C A B C B C A B C B C A B C B C A B C B C			C C A A A A A B C A A B B D B A C A B C A	ADDAA BACC A BBBC A CCABAA BACC A
3004	1100 4043 4145 5183 5356 5554 5556	D B A A A A A A A A A A A A A C A A A C A A A C A A A B A C A B B C A B B	D B A A A A A A A A C A A B A D B A C A B B C A B B C A B B			C C A A A A A B C A A B B D B A C B C A	ABDAA BACC ABBBC ACCABAABACC A
3003 ALCLAD 3003	1100 4043 4145	B B A A A A A A B A A A A C B A	B	B A A A A A A B A A	B A A A A A A B A A	B B A A A A A A B A A A A C B A	
2219	2319 4043 4145	B A A A A A A B A A	B A A A A A A B A A		A A A A A A B C B C A A B C B A	0.00	
2014 2036	2319 4043 4145	B A A A A A A B A A	B A A A A A A B A A	C A A A A A B C B C A A B C B A			
1100	1100 4043	B B A A A A A A B A A	B		1 50	0	
1060, 1070 1080, 1350	1100 1188 4043	B B A A A B C C A A A A A A B A A					

GIANT WELDING

Aluminum Filler Alloy Chart

Base Alloy	Filler				LA 104						05 50						52 52					50 54						50 50			
Charact	eristics	J	R	D	C	T	M	J	R	D	С	T	M	J	R	D	C	T	M	J	R	D	C	T	M	J	R	D	c	T	M
	4043	A	C	С	В			A	В	C	В			Г						Г						Г					
	5183	A	A	В	Α		Α	A	A	В	A		Α	A	Α	В	A		A	A	A	В	A		Α	A	A	В	A		A
5086	5356	٨	В	Α	٨		Α	Α	A	Α	٨		Α	Α	В	A	٨		Α	Α	В	Α	Α		Α	٨	В	Α	Α		A
5056	5554													C	\mathbf{C}	Α	Α		Α												
	5556	A	A	В	A		Α	A	A	В	A		A	A	A	В	A		A	A	A	В	A		A	A	Α	В	Α		A
	5654													В	С	Α	٨	3	В							L					
	4043	A	C	C	В			A	В	C	В																				
	5183	A	A	В	A		Α	A	A	В	٨		Α	A	Α	В	A		A	Α		В	Α		A						
5083	5356	A	В	A	A		Α	A	A	A	A		A	Α	В	A	A		A	Α		Α	A		A						
5456	5554													C	C	A	A		A												
	5556	A	A	В	Α		Α	A	A	В	A		A	Α	Α	В	A		A	Α	Α	В	A		A						
	5654							L						В	C	A	Α		В	L						L					
	4043	A	C	C	A	Α		A	В	C	A	Α		Α	D	C	В	A													
	5183	В	A	В			Α	В	A	В			Α	Α	Α	В	C		В												
5052	5356	В	В	A			Α	В	A	A			Α	Α	В	A	C		A												
5652	5554						190	200					60	С	C	A	A	A	В												
	5556	В	A	В			Α	В	A	В			Α	Α	Α	В	C		В												
	5654	L					-	L						В	C	A	В		Α							L					
	1100							В				A	A																		
5005	4043				Α	A					A	Α																			
5050	5183	80	Λ				375	55	A				В																		
10000000	5356		A				35	211	A				В																		
	5556		٨				Α	В	A	C			В																		
	4043	-00			A	A																									
ALCLAD	5183		A				A																								
3004	5356		В				Α																								
1000000	5554	337				A	34																								
	5556	В	A	C	C		Α	L						L						L						L					

Note: Yellow means base alloy; Blue means welding wire; Gray means characteristic. Note:

- J: Ease of welding
- R: Strength of welding joint
- D: Ductility
- C: Corrosion resistance
- T: Service at sustained temperatures above $150(\mathfrak{T}) \approx 65.5(\mathfrak{C})$.
- M: Color match after anodizing.

Characteristics—A: best; B: good; C: normal; D: poor; (blank means can't choose)

Jiangsu Giant Welding Co.,Ltd

GIANT WELDING

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