

MIG Wires



Super Arc and Super Glide Mild Steel and Low Alloy Wires

MicroGuard Ultra surface treatment, with proprietary arc enhancement agents, facilitates excellent weld puddle control, very good wetting action, straight bead edges and a wider operating range. Plus, the exceptional feeding characteristics of Super Arc and Super Glide™, made possible by MicroGuard™ Ultra surface treatment, translate to reduced down-time and high operator appeal.

Electrode Name	AWS Class	General Description	Shielding Gas	WFS, Volts & Amps	Diameter						
					.025"	.030"	.035"	.045"	.052"	1/16"	
Mild Steel Wire											
Super Arc™ L-50®	ER70S-3	Our most popular MIG wire, Super Arc™ L-50®, premium copper coated wire, is an excellent choice for 70,000 psi (483 MPa) tensile strength, carbon steel base materials. Super Arc™ L-50® has moderate levels of silicon and manganese for deoxidation and cleaning action. Designed for use on clean, oil-free, and rust-free base material. Will tolerate light millscale. Super Arc™ L-50® also has an excellent reputation for feedability and trouble-free performance. Shielding gases include argon/carbon dioxide blends, argon/oxygen blends, straight carbon dioxide.	100% CO ₂	WFS	—	75-300	100-250	125-200	—	—	—
			75-80%Ar / Balance CO ₂	Volts	—	17-22	18-22	18-22	—	—	—
			Amps	—	35-130	80-175	145-200	—	—	—	
Super Glide™ S3	ER70S-3	Super Glide™ S3, our premium bare MIG wire, like our Super Arc™ L-50®, is an excellent choice for 70,000 psi (483 MPa) tensile strength, carbon steel base materials. Super Glide™ S3 has moderate silicon and manganese deoxidizer levels and has an excellent reputation for feedability and trouble-free performance. Designed for use on clean, oil-free, and rust-free base material. Will tolerate light millscale. Super Glide™ S3 MIG wire is an excellent choice when a bare or non-copper coated ER70S-3 wire is preferred. Shielding gases include argon/carbon dioxide blends, argon/oxygen blends, straight carbon dioxide, and three or four-part gas mixes.	100% CO ₂	WFS	—	75-300	100-250	125-200	—	—	
			75-80%Ar / Balance CO ₂	Volts	—	17-22	18-22	18-22	—	—	
			Amps	—	35-130	80-175	145-200	—	—		
Super Arc™ L-54	ER70S-4	Super Arc™ L-54 premium copper coated MIG wire is your first choice when welding on metals with a light to medium presence of millscale. For best performance, use on clean, oil-free, and rust-free base material. Improved wetting at the toes of a weld when compared to welds made with ER70S-3 electrode. Super Arc™ L-54 has higher silicon and manganese deoxidizer levels than AWS ER70S-3 electrodes to tolerate moderate levels of millscale. Shielding gases include argon/carbon dioxide blends, argon/oxygen blends, straight carbon dioxide, and three or four-part gas mixes.	100% CO ₂	WFS	—	75-300	100-250	125-200	—	—	
			75-80%Ar / Balance CO ₂	Volts	—	17-22	18-22	18-22	—	—	
			Amps	—	35-130	80-175	145-200	—	—		
Super Arc™ L-56®	ER70S-6	Lincoln's premium copper coated MIG wire, Super Arc™ L-56® is an excellent choice for welding on metals with a medium to high presence of millscale. For best performance use on clean, oil-free, and rust-free base material. Best weld appearance and low wetting when compared to ER70S-3 and ER70S-4 classifications. Super Arc™ L-56® has high silicon and manganese deoxidizer levels. Superior feedability and excellent arc characteristics are trademarks of Super Arc™ L-56®. Shielding gases include argon/carbon dioxide blends, argon/oxygen blends, straight carbon dioxide, and three or four part gas mixes.	100% CO ₂	WFS	100-250	75-300	100-250	125-200	—	—	
			75-80%Ar / Balance CO ₂	Volts	17-19	16-22	17-22	18-22	—	—	
			Amps	35-90	35-130	80-175	145-200	—	—		
Super Glide™ S6	ER70S-6	Lincoln's premium bare, mild steel MIG wire, Super Glide™ S6 is an excellent choice for welding on metals with a medium to high presence of millscale. For best performance use on clean, oil-free, and rust-free base material. S6 will tolerate higher levels of surface contaminants than ER70S-3 or S-4 electrodes. Best weld appearance and low wetting when compared to ER70S-3 and ER70S-4 classifications. High silicon and manganese deoxidizer levels. Super Glide™ S6 MIG wire is the choice for you when a bare or non-copper coated ER70S-6 wire is preferred. Shielding gases include argon/carbon dioxide blends, argon/oxygen blends, straight carbon dioxide, and three or four-part gas mixes.	100% CO ₂	WFS	100-250	75-300	100-250	125-200	—	—	
			75-80%Ar / Balance CO ₂	Volts	17-19	16-22	17-22	18-22	—	—	
			Amps	35-90	35-130	80-175	145-200	—	—		
Super Arc™ LA-75	ER80S-N1	Super Arc™ LA-75 is a premium copper coated, low alloy MIG wire certified to meet 80,000 psi (552 MPa) minimum tensile strength. Optimal mechanical properties are achieved with a 99.95% argon, 2.5% oxygen shielding gas blend. Can be welded with 90% argon, 10% carbon dioxide gas blend, as well as 75% argon, 25% carbon dioxide mixture. Charpy V-Notch impact testing meets or exceeds 20 ft. lbs. (27 J) at -50°F (-46°C). Provides best weld deposit with atmospheric corrosion resistance for ASTM A588 weathering steels.	80-95%Ar / Balance CO ₂	WFS	—	—	130-600	300-450	—	—	
			95-98%Ar / Balance O ₂	Volts	—	—	15-30	20-30	—	—	
			Amps	—	—	70-260	210-300	—	—		
Super Arc™ LA-90	ER80S-O2 ER90S-O2 ER90S-G	Super Arc™ LA-90 is our premium copper coated, low alloy MIG wire manufactured to meet tensile strength requirements of 80,000 to 90,000 psi (552-620 MPa) minimum. The addition of 0.5% molybdenum provides strength after stress relief. Ideal selection when welding ASTM A182, A217, A234 and A335 high temperature pipe, fittings, flanges and valves, and A336 pressure vessel forgings. Best mechanical properties are achieved with an 89-95% argon, 2-5% oxygen shielding gas blend.	100% CO ₂	WFS	—	—	100-250	125-200	—	—	
			75-80%Ar / Balance CO ₂	Volts	—	—	17-22	18-22	—	—	
			Amps	—	—	80-175	145-200	—	—		
Super Arc™ LA-100	ER100S-G ER110S-G MIL-100S-1 (military)	Super Arc™ LA-100, our premium copper coated, low alloy MIG wire is designed for use on 100,000 psi (690 MPa) tensile base material and those materials that require a minimum yield strength of 62,000 psi (565 MPa). Excellent for welding on ASTM A514, A543, A724 and A782 quenched and tempered plate or H-80 base metal. LA-100 provides excellent impact properties under higher heat input conditions. Best mechanical properties are achieved with an 89-95% argon, 2-5% oxygen shielding gas blend or 95% argon/5% oxygen. Also meets MIL-E-23765/2C, 2D, 2E specifications as a MIL-100S-1 classification.	90-95%Ar / Balance CO ₂	WFS	—	—	—	300-450	—	170-300	
			95-98%Ar / Balance O ₂	Volts	—	—	—	20-30	—	—	21-29
			Amps	—	—	—	—	210-300	—	—	280-450

Super Glaze™ Aluminum MIG Wire

Super Glaze™ controls the problems usually associated with aluminum wire feeding such as birdnesting, tangling and burnback, by providing fewer surface imperfections and feeding the wire with less force than typical competitive products.

Electrode Name	AWS Class	General Description	Shielding Gas	Volts & Amps	Diameter					
					.030"	.035"	.040"	3/64"	1/16"	
Aluminum MIG Wire										
Super Glaze™ 1100	ER1100	Super Glaze™ 1100 is highly resistant to chemical corrosion and has good crack resistance. Suitable for electrical and chemical applications utilizing aluminum base metal with little or no alloying elements. Like all XXXX filler alloys, Lincoln's Super Glaze™ 1100 is the softest aluminum MIG wire and requires extra care to ensure good feeding.	100% Ar	Volts	15-19	15-20	18-23	19-24	22-27	—
			Ar/He Mixtures	Amps	70-135	90-140	110-220	140-250	200-300	—
Super Glaze™ 4043	ER4043	Super Glaze™ 4043 is a great choice for the welding of heat-treatable base alloys and more specifically the 6XXX series alloys. It has a lower melting point and more fluidity than the 5XXX series filler alloys and is preferred by welders because of its favorable operating characteristics. ER4043 type wires are also less sensitive to weld cracking than the 6XXX series base alloys. Super Glaze™ 4043 is suitable for sustained elevated temperature service, i.e. above 150°F (65°C).	100% Ar	Volts	15-19	15-20	18-23	19-24	22-27	—
			Ar/He Mixtures	Amps	70-135	90-140	110-220	140-250	200-300	—
Super Glaze™ 4047	ER4047	A lower melting point and higher fluidity are two advantages Super Glaze™ 4047 has over its cousin Super Glaze™ 4043. Super Glaze™ 4047 produces very clean weld deposits and possesses excellent operator appeal. It can be used as a substitute for an ER4043 type wire to increase silicon in the weld metal, minimize hot cracking, and produce higher fillet weld shear strength. Super Glaze™ 4047 is suitable for sustained elevated temperature service, i.e. above 150°F (65°C).	100% Ar	Volts	15-19	15-20	18-23	19-24	22-27	—
			Ar/He Mixtures	Amps	70-135	90-140	110-220	140-250	200-300	—
Super Glaze™ 5183	ER5183	Super Glaze™ 5183 is designed to weld high magnesium alloys to meet higher tensile strength requirements. Use on 5083 and 5654 base materials when required tensile strengths are 40,000 psi (276 MPa) or greater. Typical applications are in the marine and cryogenic industries, and high strength structural aluminum fabrication.	100% Ar	Volts	15-19	15-20	18-23	19-24	22-27	—
			Ar/He Mixtures	Amps	70-135	90-140	110-220	140-250	200-300	—
Super Glaze™ 5356	ER5356	Super Glaze™ 5356 is our most popular aluminum MIG wire. It is a great general purpose filler alloy designed for the welding of 5XXX series alloys when 40,000 psi (276 MPa) tensile strength is not required. 5356 is often chosen for its high shear strength.	100% Ar	Volts	15-19	15-20	18-23	19-24	22-27	—
			Ar/He Mixtures	Amps	70-135	90-140	110-220	140-250	200-300	—
Super Glaze™ 5554	ER5554	Super Glaze™ 5554 is intended as a matching filler alloy when welding 5454 base alloys. This alloy is a lower magnesium content alloy and is often used for automotive wheels, over-the-road trailers, and rail tank cars where the weld filler metal chemistry must closely match the base material chemistry to maximize corrosion performance.	100% Ar	Volts	15-19	15-20	18-23	19-24	22-27	—
			Ar/He Mixtures	Amps	70-135	90-140	110-220	140-250	200-300	—
Super Glaze™ 5556	ER5556	Super Glaze™ 5556 weld deposits will provide matching tensile strengths for the 5XXX alloys, such as 5083 and 5654. Contains increased amounts of magnesium or manganese compared to Super Glaze™ 5356.	100% Ar	Volts	15-19	15-20	18-23	19-24	22-27	—
			Ar/He Mixtures	Amps	70-135	90-140	110-220	140-250	200-300	—

BLUE MAX™ Stainless Steel MIG Wire

Blue Max™ stainless steel MIG wires can be used for all position welding. Globular and spray transfer are recommended for downhand and horizontal only. Short circuiting mode and pulsed arc can be used for out-of-position welding. Gas shielding mixtures recommended are either argon and oxygen blend for spray and pulsed transfer, or a helium-rich blend for short circuiting and STT™ welding.

Electrode Name	AWS Class	General Description	Shielding Gas	WFS, Volts & Amps	Diameter					
					.025"	.030"	.035"	.045"	.052"	1/16"
Stainless Steel MIG Wire										
Blue Max™ MIG 308LSI	ER308SI ER308LSI	This premium quality MIG wire is for joining 304 and 304L and other common "18-8" austenitic stainless steels. It is specially processed for superior feeding and arc stability.	(Short Circuiting Mode)	WFS	—	—	140-425	100-275	—	—
			90%He/7.5%Ar/2.5%CO ₂	Volts	—	—	19-23	19-23	—	—
			Amps	—	—	55-170	100-185	—	—	
			(Spray Transfer)	WFS	—	—	400-475	240-360	—	175-300
			98%Ar/2%CO ₂	Volts	—	—	23-25	24-26	—	26-32
			Amps	—	—	180-210	195-260	—	260-390	
Blue Max™ MIG 309LSI	ER309SI ER309LSI	Blue Max™ MIG 309LSI is a premium quality MIG wire ideally suited for joining mild steel or low alloy steel to stainless steel. This wire is specially processed to provide superior feeding and arc stability.	(Short Circuiting Mode)	WFS	—	—	120-425	100-275	—	—
			90%He / 7.5%Ar/2.5%CO ₂	Volts	—	—	19-23	19-23	—	—
			Amps	—	—	55-170	100-185	—	—	
			(Spray Transfer)	WFS	—	—	400-475	240-360	—	175-300
			98%Ar/2%CO ₂	Volts	—	—	23-25	24-26	—	26-32
			Amps	—	—	180-210	195-260	—	260-390	
Blue Max™ MIG 316LSI	ER316SI ER316LSI	When joining 316 and 316L stainless steels with the MIG process, Blue Max™ MIG 316LSI is the answer. This premium quality wire is specially processed to provide superior feeding and arc stability.	(Short Circuiting Mode)	WFS	—	—	120-425	100-275	—	—
			90%He/7.5%Ar/2.5%CO ₂	Volts	—	—	19-23	19-23	—	—
			Amps	—	—	55-170	100-185	—	—	
			(Spray Transfer)	WFS	—	—	400-475	240-360	—	175-300
			98%Ar/2%CO ₂	Volts	—	—	23-25	24-26	—	26-32
			Amps	—	—	180-210	195-260	—	260-390	

CUSTOMER ASSISTANCE POLICY
The purpose of Lincoln Electric Company's manufacturing and selling high quality welding equipment and supply systems, our charge is to meet the needs of our customers and to provide the best service possible. We desire to be the most helpful and efficient. We provide technical assistance through our technical service department and our field sales representatives. We desire to be the most helpful and efficient. We provide technical assistance through our technical service department and our field sales representatives. We desire to be the most helpful and efficient. We provide technical assistance through our technical service department and our field sales representatives.

IMPORTANT
This welding wire should be used only on the metals for which it is intended. It should not be used on other metals, such as aluminum, brass, copper, or titanium. It should not be used on other metals, such as aluminum, brass, copper, or titanium. It should not be used on other metals, such as aluminum, brass, copper, or titanium.

