

BLUESHIELD™ Stainless Steel Welding Consumables



High quality 308, 309 and 316 Stainless Steel Welding Consumables

BLUESHIELD stainless steel products go through a rigorous quality control system, which ensures a consistent quality product time after time. Teaming these high-quality consumables up with **BLUESHIELD/Arcal™** shielding gases provides the end user with reliable performance and improved welder appeal. Whether thick or thin material is being welded, we have the right consumables to meet your needs.

BLUESHIELD *stainless steel consumables synonym of performance and reliability.*



Stainless Steel Welding Consumables

BLUESHIELD 620, 622 and 624 – SMAW Stainless Consumables

Like the carbon steel for father **LA 7018**, **BLUESHIELD 620, 622** and **624** stainless steel electrodes offer the same consistency in operator appeal, quality and performance that industry has come to expect. These electrodes are characterized by their distinctive, smooth, spray-type metal transfer, self-peeling slag, minimal spatter and superior weld bead profile for welding the most common grades of austenitic stainless steels.



BLUESHIELD 620, 622 and **624** stainless steel electrodes offer enhanced all-position welding characteristics, specifically designed for vertical-up and overhead welding. These electrodes are characterized by their fast-freezing slag, spray-type metal transfer, easy slag removal, minimal spatter and a smooth, flat bead profile for welding the most common grades of austenitic stainless steel.

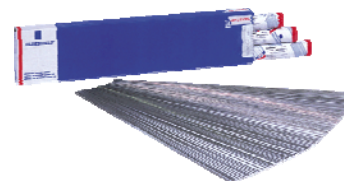
NAME	AWS CLASS	DIAMETER		PACKAGING	
		mm	in	kg	lb
BLUESHIELD 620-308L	E308L-17	2.5	3/32	3 x 3.4	3 x 7.5
		3.2	1/8	3 x 4.1	3 x 9.0
		4.0	5/32	3 x 3.9	3 x 8.8
		5.0	3/16	3 x 4.9	3 x 10.8
BLUESHIELD 620P-308L	E308L-17	2.5	3/32	3 x 3.4	3 x 7.5
		3.2	1/8	3 x 4.1	3 x 9.0
BLUESHIELD 622-316L	E316L-17	2.5	3/32	3 x 3.4	3 x 7.5
		3.2	1/8	3 x 4.1	3 x 9.0
		4.0	5/32	3 x 3.9	3 x 8.8
		5.0	3/16	3 x 4.9	3 x 10.8
BLUESHIELD 622P-316L	E316L-17	2.5	3/32	3 x 3.4	3 x 7.5
		3.2	1/8	3 x 4.1	3 x 9.0
BLUESHIELD 624-309L	E309L-17	2.5	3/32	3 x 3.4	3 x 7.5
		3.2	1/8	3 x 4.1	3 x 9.0
		4.0	5/32	3 x 3.9	3 x 8.8
		5.0	3/16	3 x 4.9	3 x 10.8
BLUESHIELD 624P-309L	E309L-17	2.5	3/32	3 x 3.4	3 x 7.5
		3.2	1/8	3 x 4.1	3 x 9.0



Stainless Steel Welding Consumables

BLUESHIELD 630 – GTAW (TIG) Stainless Consumables

All **BLUESHIELD 630** series GTAW (TIG) stainless steel consumables are laser imprinted with positive AWS identification and heat numbers to provide full product traceability for those demanding code quality jobs. The standard packaging is convenient: 4.5 kg / 10 lb tubes, with three tubes per master carton (13.6 kg / 30 lb).



NAME	AWS CLASS	DIAMETER		PACKAGING	
		mm	in	kg	lb
BLUESHIELD 630-308L	ER308L	1.6 to 3.2	1/16 to 1/8	3 x 4.5	3 x 10
BLUESHIELD 630-316L	ER316L	1.6 to 3.2	1/16 to 1/8	3 x 4.5	3 x 10
BLUESHIELD 630-309L	ER309L	1.6 to 3.2	1/16 to 1/8	3 x 4.5	3 x 10

BLUESHIELD 640 – GMAW Stainless Consumables

BLUESHIELD 640 series stainless steel wires are designed for those high-quality stainless welding jobs. All products are packaged on convenient plastic spools and precision level wound (PWL) to ensure maximum feed ability and weld quality.



NAME	AWS CLASS	DIAMETER		PACKAGING	
		mm	in	kg	lb
BLUESHIELD 640-308L	ER308L	0.8	0.030	11.3	25
		1.6 to 3.2	0.035 to 0.062	13.6	30
BLUESHIELD 640-308L HiSiI	ER308LSi	0.8	0.030	11.3	25
		1.6 to 3.2	0.035 to 0.062	13.6	30
BLUESHIELD 640-316L	ER316L	0.8	0.030	11.3	25
		1.6 to 3.2	0.035 to 0.062	13.6	30
BLUESHIELD 640-316L HiSiI	ER316LSi	0.8	0.030	11.3	25
		1.6 to 3.2	0.035 to 0.062	13.6	30
BLUESHIELD 640-309L	ER309L	0.8	0.030	11.3	25
		1.6 to 3.2	0.035 to 0.062	13.6	30
BLUESHIELD 640-309L HiSiI	ER309LSi	0.8	0.030	11.3	25
		1.6 to 3.2	0.035 to 0.062	13.6	30



Stainless Steel Welding Consumables

BLUESHIELD 650, 652, 654 and LEXAL – FCAW Stainless Consumables

BLUESHIELD 650, 652, 654 and **LEXAL 2209** stainless steel wires offer the same consistency in operator appeal, quality and performance that industry has come to expect of our **BLUESHIELD** carbon steel FCAW wires. These wires offer a distinctive, smooth, spray-type, metal transfer, self-peeling slag, minimal spatter and superior weld bead profile.



BLUESHIELD 650, 652, 654 and **LEXAL 2209P** stainless steel wires offer enhanced all-position welding characteristics, specifically designed for vertical-up and overhead welding. These wires are characterized by their fast-freezing slag, spray-type metal transfer, easy slag removal, minimal spatter and a smooth, flat bead profile for welding in vertical-up or overhead positions.

NAME	AWS CLASS	DIAMETER		PACKAGING	
		mm	in	kg	lb
BLUESHIELD 650-308L	E308LT0-1,4	1.2 and 1.6	0.045 and 0.062	12.7	28
BLUESHIELD 650P-308L	E308LT1-1,4	1.2 and 1.6	0.045 and 0.062	12.7	28
BLUESHIELD 652-316L	E316LT0-1,4	1.2 and 1.6	0.045 and 0.062	12.7	28
BLUESHIELD 652P-316L	E316LT1-1,4	1.2 and 1.6	0.045 and 0.062	12.7	28
BLUESHIELD 654-309L	E309LT0-1,4	1.2 and 1.6	0.045 and 0.062	12.7	28
BLUESHIELD 654P-309L	E309LT1-1,4	1.2 and 1.6	0.045 and 0.062	12.7	28
LEXAL 2209	E2209LT0-1,4	1.2	0.045	12.7	28
LEXAL 2209P	E2209LT1-1,4	1.2	0.045	12.7	28



Typical Stainless Steel Welding Parameters

SMAW STAINLESS STEEL WELDING PARAMETERS

FILLER ROD DIAMETER		AMPERAGE
mm	in	A
2.5	3/32	40-80
3.2	1/8	65-120
4.0	5/32	95-160
5.0	3/16	130-200

GMAW STAINLESS STEEL WELDING PARAMETERS

	SHIELDING GAS	ELECTRODE mm	DIAMETER in	AMPERAGE A	WIRE FEED SPEED ipm	ARC VOLTAGE V
SHORT CIRCUIT TRANSFER	ARCAL 121	0.8	0.030	60-125	150-280	16-23
	or BLUESHIELD 9	0.9	0.035	75-160	125-280	16-23
		1.2	0.045	100-200	110-230	16-24
SPRAY TRANSFER	ARCAL 14 or BLUESHIELD 4 or ARCAL 121	0.9	0.035	180-300	290-600	24-33
		1.2	0.045	200-450	250-475	24-35
		1.6	0.062	220-500	180-300	24-36

GTAW STAINLESS STEEL WELDING PARAMETERS

METAL THICKNESS	JOINT TYPE	TUNGSTEN ELECTRODE DIAMETER		FILLER ROD DIAMETER		AMPERAGE A	GAS	
		mm	in	mm	in		Type	Flow-CFH
1.6 mm (1/16")	Butt	1.6	1/16	1.6	1/16	40-60	Argon	15
	Lap	1.6	1/16	1.6	1/16	50-70	Argon	15
	Corner	1.6	1/16	1.6	1/16	40-60	Argon	15
	Fillet	1.6	1/16	1.6	1/16	50-70	Argon	15
3.2 mm (1/8")	Butt	2.4	3/32	2.4	3/32	65-85	Argon	15
	Lap	2.4	3/32	2.4	3/32	90-110	Argon	15
	Corner	2.4	3/32	2.4	3/32	65-85	Argon	15
	Fillet	2.4	3/32	2.4	3/32	90-110	Argon	15
4.8 mm (3/16")	Butt	2.4	3/32	3.2	1/8	100-125	Argon	20
	Lap	2.4	3/32	3.2	1/8	125-150	Argon	20
	Corner	2.4	3/32	3.2	1/8	100-125	Argon	20
	Fillet	2.4	3/32	3.2	1/8	125-150	Argon	20
6.4 mm (1/4")	Butt	3.2	1/8	4.0	5/32	135-160	Argon	20
	Lap	3.2	1/8	4.0	5/32	160-180	Argon	20
	Corner	3.2	1/8	4.0	5/32	135-160	Argon	20
	Fillet	3.2	1/8	4.0	5/32	160-180	Argon	20