



Xycore Incorporated
New Jersey | Georgia

MIG WIRE

PRODUCT CATALOG





BLUME[®] MIG WIRES

Carbon Steel MIG Wires

BLUME [®] ER70S-6 - AWS A5.18 ER70S-6	102
BLUME [®] ER70S-3 - AWS A5.18 ER70S-3	104
BLUME [®] ER70S-4 - AWS A5.18 ER70S-4	106
BLUME [®] ER70S-G - AWS A5.18 ER70S-G	108

Low Alloy Steel MIG Wires

BLUME [®] ER80S-D2 - AWS A5.28 ER80S-D2	110
BLUME [®] ER80S-G - AWS A5.28 ER80S-G	112
BLUME [®] ER90S-G - AWS A5.28 ER90S-G	114
BLUME [®] ER100S-G - AWS A5.28 ER100S-G	116
BLUME [®] ER80S-Ni1 - AWS A5.28 ER80S-Ni1	118
BLUME [®] ER80S-Ni2 - AWS A5.28 ER80S-Ni2	120
BLUME [®] ER80S-Ni3 - AWS A5.28 ER80S-Ni3	122

Stainless Steel MIG Wires

BLUME [®] ER307 - AWS A5.9 ER307	124
BLUME [®] ER308 - AWS A5.9 ER308	126
BLUME [®] ER308L - AWS A5.9 ER308L	128
BLUME [®] ER308LSi - AWS A5.9 ER308LSi	130
BLUME [®] ER309 - AWS A5.9 ER309	132
BLUME [®] ER309L - AWS A5.9 ER309L	134
BLUME [®] ER309LSi - AWS A5.9 ER309LSi	136
BLUME [®] ER309Mo - AWS A5.9 ER309Mo	138
BLUME [®] ER309LMo - AWS A5.9 ER309LMo	140
BLUME [®] ER310 - AWS A5.9 ER310	142
BLUME [®] ER316 - AWS A5.9 ER316	144
BLUME [®] ER316L - AWS A5.9 ER316L	146
BLUME [®] ER317 - AWS A5.9 ER317	148
BLUME [®] ER317L - AWS A5.9 ER317L	150
BLUME [®] ER347 - AWS A5.9 ER347	152
BLUME [®] ER385 - AWS A5.9 ER385	154
BLUME [®] ER410 - AWS A5.9 ER410	156
BLUME [®] ER430 - AWS A5.9 ER430	158
BLUME [®] ER630 - AWS A5.9 ER630	160
BLUME [®] ER2209 - AWS A5.9 ER2209	162
BLUME [®] ER2594 - AWS A5.9 ER2594	164

Nickel Alloy MIG Wires

BLUME [®] ERNiCr-3 - AWS A5.14 ERNiCr-3	166
BLUME [®] ERNiCrMo-3 - AWS A5.14 ERNiCrMo-3	168
BLUME [®] ERNiCrMo-4 - AWS A5.14 ERNiCrMo-4	170
BLUME [®] ERNiCrMo-10 - AWS A5.14 ERNiCrMo-10	172
BLUME [®] ERNi-1 - AWS A5.14 ERNi-1	174
BLUME [®] ERNiCu-7 - AWS A5.14 ERNiCu-7	176

Aluminum MIG Wires

BLUME [®] ER1070 - AWS A5.10 ER1070	178
BLUME [®] ER4043 - AWS A5.10 ER4043	180
BLUME [®] ER4047 - AWS A5.10 ER4047	182
BLUME [®] ER5356 - AWS A5.10 ER5356	183
BLUME [®] ER5183 - AWS A5.10 ER5183	185



blume®

ER70S-6

Carbon Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.18 ER70S-6

SHIELDING GAS

100% CO₂ ,75% Argon and 25% CO₂ or
98% Argon and 2 % CO₂

WELDING POSITION

All Position

DESCRIPTION

BLUME® ER70S-6 is a general purpose welding wire for fabrication of mild steel . It is well suited for general purpose, manual and semiautomatic applications in most industries. Contains deoxidizers that provide better wetting, yielding a flatter bead shape and the capability of faster travel speeds . Usually used with 100% CO₂ or with Argon + CO₂.

TYPICAL APPLICATION

BLUME® ER70S-6 is a wire with higher levels of Deoxidizers (Mn & Si) compared to other carbon steel wires. This wire is suitable for welding of steels with moderate amounts of scale or rust.

MECHANICAL PROPERTIES

	As-Welded
Yield Point, MPa	> 420
Tensile Strength, MPa	> 500
Elongation, % (L=4d)	> 29

CHARPY V-NOTCH IMPACT PROPERTIES

Testing Temp.	As-Welded (J)
-22°F (-30°C)	47 (min)

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.08	1.52	0.80	0.010	0.015
	Cu	-	-	-	-
As Welded	0.21	-	-	-	-



blume®

ER70S-6**Carbon Steel MIG Wire****CONFORMANCE**

ASME SFA/AWS A5.18 ER70S-6

SHIELDING GAS100% CO₂ ,75% Argon and 25% CO₂ or
98% Argon and 2 % CO₂**WELDING POSITION**

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Flat		Vertical-Up		Overhead	
	Volts	Amps	Volts	Amps	Volts	Amps
.030" (0.8mm)	14 - 22	50 - 180	12 - 20	70 - 230	14 - 21	100 - 280
.035" (0.9mm)	15 - 26	70 - 230	14 - 23	100 - 280	15 - 25	120 - 230
.045" (1.2mm)	22 - 28	180 - 260	21 - 26	150 - 230	22 - 27	160 - 240
1/16" (1.6mm)	25 - 32	250 - 350	23 - 28	200 - 280	24 - 30	220 - 300

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.



blume®

ER70S-3

Carbon Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.18 ER70S-3

SHIELDING GAS

100% CO₂, 75% Argon and 25% CO₂ or
98% Argon and 2 % CO₂

WELDING POSITION

All Position

DESCRIPTION

BLUME® ER70S-3 is a gas-shielded solid welding wire designed for low alloy steels, offering excellent welding performance with a stable arc, low spatter, good molten metal flow, and a clean, well-formed bead appearance. It is particularly well-suited for thin plate welding at low current and high travel speeds. The deposited metal provides well-balanced mechanical properties, making it ideal for a wide range of general fabrication applications.

TYPICAL APPLICATION

BLUME ER70S-3 is ideal for general-purpose welding in industries such as automotive, construction, machinery fabrication, and metal furniture manufacturing. It is especially suited for welding thin-gauge mild and low-alloy steels where minimal spatter and smooth bead appearance are required. Common applications include sheet metal structures and structural frames.

MECHANICAL PROPERTIES

	As-Welded
Yield Point, MPa	> 420
Tensile Strength, MPa	> 500
Elongation, % (L=4d)	> 29

CHARPY V-NOTCH IMPACT PROPERTIES

Testing Temp.	As-Welded (J)
-22°F (-30°C)	47 (min)

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.07	1.15	0.63	0.021	0.020
	Ni	Cr	Mo	V	Cu
As Welded	0.023	0.021	0.023	0.004	0.12



blume®

ER70S-3

Carbon Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.18 ER70S-3

SHIELDING GAS

100% CO₂ ,75% Argon and 25% CO₂ or
98% Argon and 2 % CO₂

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	CO ₂ gas flow (L/min)
.030" (0.8mm)	50 - 100	15
.035" (0.9mm)	50 - 220	15 - 20
.045" (1.2mm)	80 - 350	15 - 25
1/16" (1.6mm)	170 ~ 550	20 - 25

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.



blume®

ER70S-4

Carbon Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.18 ER70S-4

SHIELDING GAS

100% CO₂, 75% Argon and 25% CO₂ or
98% Argon and 2 % CO₂

WELDING POSITION

All Position

DESCRIPTION

BLUME® ER70S-4 is a gas-shielded solid welding wire designed for low alloy steels, delivering excellent welding performance with a stable arc and clean, well-formed bead appearance. Suitable for all-position welding, it produces deposited metal with well-balanced mechanical properties, making it a reliable choice for a variety of fabrication needs.

TYPICAL APPLICATION

BLUME® ER70S-4 is suitable for welding a range of carbon and low alloy steels with a tensile strength of up to 500 MPa. It is commonly used in applications such as bridge construction, structural fabrication, and construction machinery.

MECHANICAL PROPERTIES

	As-Welded
Yield Point, MPa	450
Tensile Strength, MPa	540
Elongation, % (L=4d)	30

CHARPY V-NOTCH IMPACT PROPERTIES

Testing Temp.	As-Welded (J)
-22°F (-30°C)	95
-22°F (-30°C)	93
-22°F (-30°C)	87

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.085	1.05	0.72	0.014	0.014
	Ni	Cr	Mo	V	Cu
As Welded	0.005	0.018	0.006	0.003	0.11



blume®

ER70S-4

Carbon Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.18 ER70S-4

SHIELDING GAS

100% CO₂ ,75% Argon and 25% CO₂ or
98% Argon and 2 % CO₂

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	CO ₂ gas flow (L/min)
.030" (0.8mm)	50 - 100	15
.035" (0.9mm)	50 - 220	15 - 20
.045" (1.2mm)	80 - 350	15 - 25
1/16" (1.6mm)	170 ~ 550	20 - 25

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.18 ER70S-G

SHIELDING GAS

 100% CO₂ ,75% Argon and 25% CO₂ or
 98% Argon and 2 % CO₂
WELDING POSITION

All Position

DESCRIPTION

BLUME® ER70S-G is a gas-shielded solid welding wire designed for low alloy steels, offering excellent welding performance characterized by a stable arc, minimal spatter, strong resistance to porosity, and a smooth, well-defined bead appearance. Suitable for all-position welding, the deposited metal delivers well-balanced mechanical properties, making it a reliable choice for a wide range of fabrication applications.

TYPICAL APPLICATION

BLUME® ER70S-G is suitable for welding carbon and low alloy steels with a tensile strength of up to 500 MPa, and is commonly used in applications such as bridge construction, heavy equipment, automotive manufacturing, and general structural fabrication.

MECHANICAL PROPERTIES

	As-Welded
Yield Point, MPa	450
Tensile Strength, MPa	550
Elongation, % (L=4d)	28.5

CHARPY V-NOTCH IMPACT PROPERTIES

Testing Temp.	As-Welded (J)
-40°F (-40°C)	78
-40°F (-40°C)	82
-40°F (-40°C)	81

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.068	1.87	0.81	0.013	0.016
	Ni	Cr	Cu	-	-
As Welded	0.008	0.024	0.120	-	-



blume® ER70S-G

Carbon Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.18 ER70S-G

SHIELDING GAS

100% CO₂ ,75% Argon and 25% CO₂ or

98% Argon and 2 % CO₂

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	CO ₂ gas flow (L/min)
.030" (0.8mm)	50 - 100	15
.035" (0.9mm)	50 - 220	15 - 20
.045" (1.2mm)	80 - 350	15 - 25
1/16" (1.6mm)	170 ~ 550	20 - 25

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.28 ER80S-D2

SHIELDING GAS

 100% CO₂, 75% Argon and 25% CO₂
WELDING POSITION

All Position

TYPICAL APPLICATION

BLUME® ER80S-D2 is suitable for welding base metals with a tensile strength of 550 MPa and is commonly used in applications such as steel structures, bridge construction, heavy equipment, and pressure vessels.

DESCRIPTION

BLUME® ER80S-D2 is a gas-shielded solid welding wire for high-strength steel, which has excellent welding performance with optimal bead appearance. It is suitable for short circuit, jet, pulse and other welding methods. The deposited metal has excellent comprehensive mechanical properties and is suitable for welding with moderate impact load requirements.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Yield Point, MPa	493
Tensile Strength, MPa	601
Elongation, % (L=4d)	22

CHARPY V-NOTCH IMPACT PROPERTIES

Testing Temp.	As-Welded with CO ₂ (J)
-22°F (-30°C)	64
-22°F (-30°C)	54
-22°F (-30°C)	46

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.10	1.70	0.65	0.008	0.010
	Ni	Mo	Cu	-	-
As Welded	0.019	0.46	0.12	-	-



blume® ER80S-D2

Low Alloy Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.28 ER80S-D2

SHIELDING GAS

100% CO₂ ,75% Argon and 25% CO₂

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	CO ₂ gas flow (L/min)
.030" (0.8mm)	50 - 100	15
.035" (0.9mm)	50 - 220	15 - 20
.045" (1.2mm)	80 - 350	15 - 25
1/16" (1.6mm)	170 ~ 550	20 - 25

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.28 ER80S-G

SHIELDING GAS

 100% CO₂, 75% Argon and 25% CO₂
WELDING POSITION

All Position

DESCRIPTION

BLUME® ER80S-G is a gas-shielded MIG welding wire engineered for marine-grade, atmospheric-corrosion-resistant steels. It delivers outstanding welding performance with a clean, well-defined bead profile, superior corrosion and crack resistance, and is approved for all-position welding. The deposited metal exhibits well-balanced mechanical properties, making it ideal for demanding marine and coastal applications.

TYPICAL APPLICATION

BLUME® ER80S-G is suitable for welding marine atmospheric corrosion-resistant steels with a tensile strength of 550 MPa. It is commonly used in applications such as bridge construction and structural steel fabrication.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Yield Point, MPa	495
Tensile Strength, MPa	605
Elongation, % (L=4d)	24

CHARPY V-NOTCH IMPACT PROPERTIES

Testing Temp.	As-Welded with CO ₂ (J)
-40°F (-40°C)	151
-40°F (-40°C)	149
-40°F (-40°C)	133

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.035	1.01	0.37	0.007	0.012
	Ni	Mo	Ti	Cu	-
As Welded	3.08	0.13	0.045	0.33	-



blume®

ER80S-G

Low Alloy Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.28 ER80S-G

SHIELDING GAS

100% CO₂, 75% Argon and 25% CO₂

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	CO ₂ gas flow (L/min)
.030" (0.8mm)	50 - 100	15
.035" (0.9mm)	50 - 220	15 - 20
.045" (1.2mm)	80 - 350	15 - 25
1/16" (1.6mm)	170 ~ 550	20 - 25

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.28 ER90S-G

SHIELDING GAS

75% Argon and 25% CO₂
WELDING POSITION

All Position

DESCRIPTION

BLUME® ER90S-G is a mixed gas-shielded solid welding wire designed for heat-resistant steels. It delivers excellent welding performance with a stable arc, low spatter, smooth wire feed, and a clean, well-formed bead. Suitable for all-position welding, the deposited metal exhibits strong mechanical properties at elevated temperatures, making it ideal for high-temperature service conditions.

TYPICAL APPLICATION

BLUME® ER90S-G is suitable for welding 2.25% Cr - 1%Mo pearlite heat-resistant steels operating at temperatures below 550°C, such as SA335 P22. It is primarily used in the fabrication of boiler tubes, pressure vessels, and components in the petrochemical industry and conventional thermal power plants.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Yield Point, MPa	608
Tensile Strength, MPa	710
Elongation, % (L=4d)	20

CHARPY V-NOTCH IMPACT PROPERTIES

Testing Temp.	As-Welded with CO ₂ (J)
68°F (20°C)	151
68°F (20°C)	149
68°F (20°C)	133

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.08	0.90	0.55	0.006	0.015
	Mo	Cr	Cu	-	-
As Welded	0.95	2.40	0.10	-	-



blume®

ER90S-G

Low Alloy Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.28 ER90S-G

SHIELDING GAS

75% Argon and 25% CO2

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	CO ₂ gas flow (L/min)
.040" (1.0mm)	50 - 220	15 - 20
.045" (1.2mm)	80 - 350	15 - 25
.052" (1.4mm)	120 - 400	20 - 25
1/16" (1.6mm)	170 ~ 550	20 - 25

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.



blume®

ER100S-G

Low Alloy Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.28 ER100S-G

SHIELDING GAS

75% Argon and 25% CO₂

WELDING POSITION

All Position

DESCRIPTION

BLUME® ER100S-G is a Ni-Mo-Ti alloyed, mixed gas-shielded solid welding wire developed for high-strength steels. It offers excellent welding performance, featuring a stable arc, minimal spatter, smooth wire feeding, and a clean, uniform bead appearance. Suitable for all-position welding, the deposited metal provides outstanding mechanical properties, making it ideal for demanding structural applications.

TYPICAL APPLICATION

BLUME® ER100S-G is suitable for welding base metals with a tensile strength of 690 MPa. It is widely used in industries such as construction and mining equipment, bridge building, structural steel fabrication, automotive manufacturing, and long-distance pipeline construction.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Yield Point, MPa	645
Tensile Strength, MPa	740
Elongation, % (L=4d)	23

CHARPY V-NOTCH IMPACT PROPERTIES

Testing Temp.	As-Welded with CO ₂ (J)
-40°F (-40°C)	100
-40°F (-40°C)	96
-40°F (-40°C)	88

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.065	1.63	0.63	0.009	0.013
	Ni	Mo	Cu	-	-
As Welded	0.61	0.32	0.11	-	-



blume® ER100S-G

Low Alloy Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.28 ER100S-G

SHIELDING GAS

75% Argon and 25% CO2

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	CO ₂ gas flow (L/min)
.040" (1.0mm)	50 - 220	15 - 20
.045" (1.2mm)	80 - 350	15 - 25
.052" (1.4mm)	120 - 400	20 - 25
1/16" (1.6mm)	170 ~ 550	20 - 25

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.



blume® ER80S-Ni1

Low Alloy Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.28 ER80S-Ni1

SHIELDING GAS

75% Argon and 25% CO₂

WELDING POSITION

All Position

DESCRIPTION

BLUME® ER80S-Ni1 is a mixed gas-shielded solid welding wire designed for low-temperature steels. It delivers excellent welding performance with a stable arc, minimal spatter, smooth wire feed, and a clean, well-defined bead. Suitable for all-position welding, the deposited metal provides outstanding impact toughness at low temperatures, making it ideal for cold-weather and cryogenic applications.

TYPICAL APPLICATION

BLUME® ER100S-G is suitable for welding low-temperature steels (down to -49°C) with a tensile strength of 550 MPa. It is primarily used in industries such as petrochemicals—including fertilizer, ethylene, coal liquefaction, and LPG—as well as in refrigeration systems, the food processing industry, and liquid gas storage equipment.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Yield Point, MPa	484
Tensile Strength, MPa	575
Elongation, % (L=4d)	26

CHARPY V-NOTCH IMPACT PROPERTIES

Testing Temp.	As-Welded with CO ₂ (J)
-49°F (-45°C)	170
-49°F (-45°C)	168
-49°F (-45°C)	164

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.07	1.10	0.55	0.006	0.012
	Ni	Cr	Mo	V	Cu
As Welded	0.95	0.02	0.005	0.002	0.10



blume® ER80S-Ni1

Low Alloy Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.28 ER80S-Ni1

SHIELDING GAS

75% Argon and 25% CO2

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	CO ₂ gas flow (L/min)
.040" (1.0mm)	50 - 220	15 - 20
.045" (1.2mm)	80 - 350	15 - 25
.052" (1.4mm)	120 - 400	20 - 25
1/16" (1.6mm)	170 ~ 550	20 - 25

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.



blume® ER80S-Ni2

Low Alloy Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.28 ER80S-Ni2

SHIELDING GAS

75% Argon and 25% CO₂

WELDING POSITION

All Position

DESCRIPTION

BLUME® ER80S-Ni2 is a mixed gas-shielded solid welding wire designed for low-temperature steels. It provides excellent welding performance with a stable arc, low spatter, smooth wire feeding, and a clean, uniform bead profile. Suitable for all-position welding, the deposited metal offers exceptional impact toughness at low temperatures, making it ideal for demanding cold-weather applications.

TYPICAL APPLICATION

BLUME® ER80S-Ni2 is suitable for welding low-temperature steels (down to -76°C) with a tensile strength of 550 MPa. It is commonly used in the petrochemical industry—including applications such as fertilizer production, ethylene processing, coal liquefaction, and LPG systems—as well as in refrigeration equipment, the food industry, and liquid gas storage tanks.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Yield Point, MPa	493
Tensile Strength, MPa	590
Elongation, % (L=4d)	26

CHARPY V-NOTCH IMPACT PROPERTIES

Testing Temp.	As-Welded with CO ₂ (J)
-76°F (-60°C)	159
-76°F (-60°C)	158
-76°F (-60°C)	133

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.035	1.15	0.45	0.006	0.010
	Ni	Cu	-	-	-
As Welded	0.95	0.10	-	-	-



blume® ER80S-Ni2

Low Alloy Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.28 ER80S-Ni2

SHIELDING GAS

75% Argon and 25% CO2

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	CO ₂ gas flow (L/min)
.040" (1.0mm)	50 - 220	15 - 20
.045" (1.2mm)	80 - 350	15 - 25
.052" (1.4mm)	120 - 400	20 - 25
1/16" (1.6mm)	170 ~ 550	20 - 25

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.



blume® ER80S-Ni3

Low Alloy Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.28 ER80S-Ni3

SHIELDING GAS

75% Argon and 25% CO₂

WELDING POSITION

All Position

DESCRIPTION

BLUME® ER80S-Ni3 is a mixed gas-shielded solid welding wire developed for low-temperature steels. It offers reliable welding performance with a stable arc, minimal spatter, smooth wire feed, and a clean, consistent bead appearance. Suitable for all-position welding, the deposited metal delivers outstanding impact toughness at extremely low temperatures, making it ideal for critical low-temperature applications.

TYPICAL APPLICATION

BLUME® ER80S-Ni3 is suitable for welding low-temperature steels (down to -75°C) with a tensile strength of 550 MPa. It is primarily used in the petrochemical industry, including fertilizer production, ethylene processing, coal liquefaction, and LPG systems—as well as in refrigeration equipment, the food processing sector, and cryogenic or liquid gas storage applications.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Yield Point, MPa	485
Tensile Strength, MPa	568
Elongation, % (L=4d)	28

CHARPY V-NOTCH IMPACT PROPERTIES

Testing Temp.	As-Welded with CO ₂ (J)
-76°F (-60°C)	170
-76°F (-60°C)	162
-76°F (-60°C)	160

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.030	0.88	0.55	0.008	0.010
	Ni	Cu	-	-	-
As Welded	3.35	0.12	-	-	-



blume® ER80S-Ni3

Low Alloy Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.28 ER80S-Ni3

SHIELDING GAS

75% Argon and 25% CO2

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	CO ₂ gas flow (L/min)
.040" (1.0mm)	50 - 220	15 - 20
.045" (1.2mm)	80 - 350	15 - 25
.052" (1.4mm)	120 - 400	20 - 25
1/16" (1.6mm)	170 ~ 550	20 - 25

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.9 ER307

SHIELDING GAS

 95% - 90% Ar + 5% - 10% CO₂
WELDING POSITION

All Position

DESCRIPTION

BLUME® ER307 is a gas-shielded MIG welding wire composed of 21Cr-9Ni-4Mn pure austenitic stainless steel. It offers excellent welding performance, featuring a stable arc, low spatter, smooth wire feeding, and a clean, well-formed bead. Suitable for all-position welding, it provides strong crack resistance and is ideal for joining non-magnetic steels, high-manganese steels, and work-hardened corrosion-resistant steels.

TYPICAL APPLICATION

BLUME® ER307 is suitable for welding in non-magnetic environments or for joining dissimilar steels. It is commonly used in applications such as shipbuilding and other specialized structural fabrications requiring high crack resistance and toughness.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	635
Elongation, % (L=4d)	36

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.080	4.50	0.43	0.010	0.012
	Cr	Ni	Mo	Cu	-
As Welded	20.02	9.52	0.87	0.10	-

CONFORMANCE

ASME SFA/AWS A5.9 ER307

SHIELDING GAS

95% - 90% Ar + 5% - 10% CO2

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.9 ER308

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂
WELDING POSITION

All Position

DESCRIPTION

BLUME® ER308 is a gas-shielded MIG welding wire made of 21Cr-10Ni austenitic stainless steel, offering excellent welding performance with a stable arc, minimal spatter, smooth wire feeding, and a clean, uniform bead appearance. Approved for all-position welding, it provides good crack resistance and is suitable for welding non-magnetic steels, high-manganese steels, and work-hardened corrosion-resistant materials.

TYPICAL APPLICATION

BLUME® ER308 is suitable for welding stainless steels such as 12Cr18Ni9 and 06Cr19Ni10. It is widely used in industries including petrochemicals, pressure vessels, food processing, medical equipment, construction machinery, and nuclear power.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	580
Elongation, % (L=4d)	40

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.040	1.80	0.31	0.008	0.013
	Cr	Ni	Mo	Cu	-
As Welded	20.15	9.52	0.036	0.34	-

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.9 ER308L

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂
WELDING POSITION

All Position

DESCRIPTION

BLUME® ER308L is a gas-shielded MIG welding wire made from ultra-low carbon 21Cr-10Ni austenitic stainless steel. It offers excellent welding performance, characterized by a stable arc, low spatter, smooth wire feeding, and a clean, consistent bead appearance. Suitable for all-position welding, it provides strong crack resistance and is ideal for welding non-magnetic steels, high-manganese steels, and work-hardened corrosion-resistant alloys.

TYPICAL APPLICATION

BLUME® ER308L is suitable for welding 022Cr19Ni10 stainless steel and is widely used in applications across the petrochemical industry, pressure vessel manufacturing, food processing, medical equipment, construction machinery, and nuclear power sectors.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	590
Elongation, % (L=4d)	41

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.023	1.63	0.40	0.009	0.013
	Cr	Ni	Mo	Cu	-
As Welded	20.10	10.55	0.037	0.09	-



CONFORMANCE
ASME SFA/AWS A5.9 ER308L

SHIELDING GAS
99% - 97% Ar + 1% - 3% O₂

WELDING POSITION
All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.



blume® ER308LSi

Stainless Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.9 ER308LSi

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

DESCRIPTION

BLUME® ER308LSi is a gas-shielded MIG welding wire composed of ultra-low carbon 18Cr-8Ni austenitic stainless steel with enhanced silicon content. It delivers excellent welding performance, featuring a smooth arc, low spatter, stable wire feed, and superior bead appearance. Suitable for all-position welding, it offers good crack resistance and is ideal for welding non-magnetic steels, high-manganese alloys, and work-hardened corrosion-resistant materials.

TYPICAL APPLICATION

BLUME® ER308LSi is suitable for welding ultra-low carbon 022Cr19Ni10 stainless steel and is commonly used in industries such as petrochemicals, pressure vessel fabrication, food processing, medical equipment, and construction machinery.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	600
Elongation, % (L=4d)	40

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.023	2.20	0.75	0.011	0.018
	Cr	Ni	Mo	Cu	-
As Welded	19.82	10.54	0.036	0.15	-



blume® ER308LSi

Stainless Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.9 ER308LSi

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

DESCRIPTION

BLUME® ER309 is a gas-shielded MIG welding wire composed of 24Cr-13Ni austenitic stainless steel. It provides excellent welding performance with a stable arc, minimal spatter, smooth wire feeding, and a clean, well-formed bead. Suitable for all-position welding, it offers strong crack resistance and is ideal for welding martensitic and pearlitic stainless steels with limited toughness.

TYPICAL APPLICATION

BLUME® ER309 is suitable for welding Cr24Ni13 stainless steel and is commonly used in industries such as petrochemicals and thermal power generation.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	610
Elongation, % (L=4d)	40

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.081	1.61	0.40	0.013	0.012
	Cr	Ni	Mo	Cu	-
As Welded	23.85	13.15	0.023	0.08	-



blume® ER309

Stainless Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.9 ER309

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

Stainless Steel MIG Wire

CONFORMANCE

ASME SFA/AWS A5.9 ER309L

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

DESCRIPTION

BLUME® ER309L is a gas-shielded MIG welding wire made from ultra-low carbon 24Cr-13Ni austenitic stainless steel. It delivers excellent welding performance with a stable arc, low spatter, smooth wire feed, and a clean, uniform bead appearance. Suitable for all-position welding, it offers strong crack resistance and is ideal for joining martensitic and ferritic stainless steels with limited toughness.

TYPICAL APPLICATION

BLUME® ER309L is suitable for welding 022Cr24Ni13 stainless steel and is commonly used in petrochemical industry applications.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	590
Elongation, % (L=4d)	38

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.021	1.95	0.34	0.008	0.012
	Cr	Ni	Mo	Cu	-
As Welded	23.90	12.92	0.039	0.08	-



blume® ER309L

Stainless Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.9 ER309L

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.



blume® ER309LSi

Stainless Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.9 ER309LSi

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

DESCRIPTION

BLUME® ER309LSi is a gas-shielded MIG welding wire composed of ultra-low carbon 24Cr-13Ni austenitic stainless steel with enhanced silicon content. It offers excellent welding performance with a stable arc, minimal spatter, smooth wire feeding, and superior bead appearance. Approved for all-position welding, it provides good crack resistance and is well-suited for welding martensitic and ferritic stainless steels with limited toughness.

TYPICAL APPLICATION

BLUME® ER309LSi is suitable for welding 022Cr24Ni13 stainless steel and is commonly used in applications within the petrochemical industry.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	595
Elongation, % (L=4d)	38

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.021	2.33	0.78	0.014	0.012
	Cr	Ni	Mo	Cu	-
As Welded	23.93	13.84	0.046	0.19	-



blume® ER309LSi

Stainless Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.9 ER309LSi

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.9 ER309Mo

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂
WELDING POSITION

All Position

TYPICAL APPLICATION

BLUME® ER309Mo is suitable for welding Cr24Ni13Mo stainless steel and is commonly used in the construction machinery industry.

DESCRIPTION

BLUME® ER309Mo is a mixed gas-shielded MIG welding wire made from 24Cr-13Ni-Mo austenitic stainless steel. It offers excellent welding characteristics, including a smooth arc, low spatter, consistent wire feeding, and a clean, well-shaped bead. Suitable for all-position welding, it provides strong crack resistance and is ideal for joining carbon steel to dissimilar stainless steels, as well as martensitic and ferritic stainless steels with limited toughness.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	585
Elongation, % (L=4d)	36

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.085	1.93	0.38	0.017	0.009
	Cr	Ni	Mo	Cu	-
As Welded	23.54	12.40	2.31	0.04	-

CONFORMANCE

ASME SFA/AWS A5.9 ER309Mo

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂
WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

**blume® ER309LMo****Stainless Steel MIG Wire****CONFORMANCE**

ASME SFA/AWS A5.9 ER309LMo

SHIELDING GAS99% - 97% Ar + 1% - 3% O₂**WELDING POSITION**

All Position

DESCRIPTION

BLUME® ER309LMo is a mixed gas shielded MIG welding wire made from ultra-low carbon C-24Cr-13Ni-Mo austenitic stainless steel. It offers outstanding welding characteristics, including a stable arc, minimal spatter, smooth wire feeding, and excellent bead appearance. Suitable for all-position welding, it provides strong crack resistance and is ideal for applications such as high-temperature service components, cladding, and dissimilar metal welding.

TYPICAL APPLICATION

BLUME® ER309LMo is suitable for welding 022Cr24Ni13 stainless steel, commonly utilized in construction machinery and related structural applications.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	592
Elongation, % (L=4d)	39

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.022	1.92	0.38	0.015	0.010
	Cr	Ni	Mo	Cu	-
As Welded	23.58	12.80	2.33	0.06	-



blume®

ER309LMo

Stainless Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.9 ER309LMo

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.9 ER310

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂
WELDING POSITION

All Position

TYPICAL APPLICATION

BLUME® ER310 is suitable for welding Cr25Ni20 stainless steel, this product is commonly used in industries such as coal mining machinery.

DESCRIPTION

BLUME® ER310 is a gas-shielded MIG welding wire designed for 26Cr-21Ni austenitic stainless steel. It offers outstanding welding performance with a stable arc, minimal spatter, smooth wire feeding, and excellent bead appearance. Suitable for all-position welding, it provides strong crack resistance and is ideal for welding and repair of high-temperature and corrosion-resistant stainless steel castings of the same grade.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	588
Elongation, % (L=4d)	37

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.087	2.00	0.38	0.009	0.011
	Cr	Ni	Mo	Cu	-
As Welded	27.42	21.82	0.035	0.35	-

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.9 ER316

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂
WELDING POSITION

All Position

DESCRIPTION

BLUME® ER316 is a gas-shielded MIG welding wire composed of 19Cr-12Ni-2Mo austenitic stainless steel. It delivers excellent welding performance with a stable arc, low spatter, smooth wire feeding, and a clean, well-formed bead. Approved for all-position welding, it offers strong crack resistance and is well-suited for service environments containing acetic acid, sulfurous acid, phosphoric acid, and various salts.

TYPICAL APPLICATION

BLUME® ER316 is suitable for welding 06Cr17Ni12Mo2 stainless steel and is widely used in applications across the petrochemical industry, construction machinery, and related sectors.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	580
Elongation, % (L=4d)	38

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.048	1.75	0.45	0.010	0.011
	Cr	Ni	Mo	Cu	-
As Welded	19.63	12.52	2.50	0.06	-



blume® ER316

Stainless Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.9 ER316

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.9 ER316L

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂
WELDING POSITION

All Position

TYPICAL APPLICATION
DESCRIPTION

BLUME® ER316L is a mixed gas shielded MIG welding wire made from ultra-low carbon 19Cr-12Ni-2Mo austenitic stainless steel. It offers excellent welding characteristics, including a stable arc, low spatter, smooth wire feeding, and clean bead appearance. Suitable for all-position welding, it provides strong resistance to cracking and is ideal for applications exposed to corrosive environments containing acetic acid, sulfurous acid, phosphoric acid, and various salts.

BLUME® ER316L is suitable for welding 022Cr19Ni12Mo₂ stainless steel and is widely used in industries such as petrochemicals and construction machinery.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	575
Elongation, % (L=4d)	37

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.023	1.90	0.42	0.008	0.009
	Cr	Ni	Mo	Cu	-
As Welded	19.12	12.59	2.59	0.28	-



blume®

ER316L

Stainless Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.9 ER316L

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

DESCRIPTION

BLUME® ER317 is a gas-shielded MIG welding wire made of 19Cr-14Ni-3Mo austenitic stainless steel, offering excellent weldability with a stable arc, minimal spatter, smooth wire feed, and clean bead appearance. It supports all-position welding and provides strong crack resistance. Ideal for applications exposed to corrosive environments containing acetic acid, sulfurous acid, phosphoric acid, and various salts.

TYPICAL APPLICATION

BLUME® ER317 is suitable for welding 06Cr17Ni12Mo3 stainless steel, and commonly used in industries such as petrochemicals and construction machinery.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	580
Elongation, % (L=4d)	38

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.048	1.75	0.45	0.014	0.015
	Cr	Ni	Mo	Cu	-
As Welded	19.63	13.52	3.54	0.06	-

CONFORMANCE

ASME SFA/AWS A5.9 ER317

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂
WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.9 ER317L

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂
WELDING POSITION

All Position

TYPICAL APPLICATION
DESCRIPTION

BLUME® ER317L is a mixed gas shielded MIG welding wire made of ultra-low carbon 19Cr-14Ni-3Mo austenitic stainless steel. It offers excellent weldability with a stable arc, minimal spatter, smooth wire feed, and a clean bead profile. Approved for all-position welding, it provides strong crack resistance and is well-suited for applications involving corrosive environments such as acetic acid, sulfurous acid, phosphoric acid, and various salts.

BLUME® ER317 is suitable for welding 0Cr19Ni13Mo3 and is commonly used in the fields such as petrochemical industry and construction machinery.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	585
Elongation, % (L=4d)	35

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.048	1.75	0.45	0.014	0.015
	Cr	Ni	Mo	Cu	-
As Welded	19.63	13.52	3.54	0.06	-

Stainless Steel MIG Wire
SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.9 ER347

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂
WELDING POSITION

All Position

DESCRIPTION

BLUME® ER347 is a gas-shielded MIG welding wire composed of 20Cr-10Ni-Nb austenitic stainless steel. It offers excellent welding characteristics, including a stable arc, low spatter, smooth wire feeding, and a clean weld appearance. Suitable for all-position welding, it provides strong crack resistance and is ideal for applications requiring corrosion-resistant welds.

TYPICAL APPLICATION

BLUME® ER347 is suitable for welding 07Cr19Ni11Nb and 07Cr18Ni11Nb stainless steels, and is widely used in industries such as food processing, medical equipment, pressure vessels, and petrochemicals.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	566
Elongation, % (L=4d)	38

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.027	1.80	0.40	0.012	0.015
	Cr	Ni	Mo	Cu	-
As Welded	20.39	9.92	0.44	0.33	-

Stainless Steel MIG Wire
SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

**blume® ER385****Stainless Steel MIG Wire****CONFORMANCE**

ASME SFA/AWS A5.9 ER385

SHIELDING GAS99% - 97% Ar + 1% - 3% O₂**WELDING POSITION**

All Position

TYPICAL APPLICATION

BLUME® ER385 is suitable for welding Cr20Ni25Mo4Cu stainless steel, this wire is commonly used in construction machinery and related applications.

DESCRIPTION

BLUME® ER385 is a mixed gas-shielded MIG welding wire composed of 20Cr-25Ni-5Mo-2Cu austenitic stainless steel. It offers excellent welding characteristics, including a stable arc, minimal spatter, smooth wire feed, and a clean bead profile. Suitable for all-position welding, it provides strong crack resistance and is ideal for applications requiring resistance to corrosion and halide-containing environments.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	545
Elongation, % (L=4d)	35

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.020	1.45	0.42	0.012	0.018
	Cr	Ni	Mo	Cu	-
As Welded	20.12	24.65	4.50	0.06	-



blume®

ER385

Stainless Steel MIG Wire



CONFORMANCE

ASME SFA/AWS A5.9 ER385

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

DESCRIPTION

BLUME® ER410 is a mixed gas shielded MIG welding wire made of 13Cr martensitic stainless steel. It delivers excellent welding characteristics including a stable arc, minimal spatter, smooth wire feeding, and clean bead appearance. Suitable for all-position welding, it offers strong crack resistance and is ideal for applications requiring both wear and corrosion resistance.

TYPICAL APPLICATION

BLUME® ER410 is suitable for welding 1Cr13 stainless steel, this wire is commonly used in hydropower and related industrial applications.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	689
Elongation, % (L=4d)	29

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.080	0.41	0.30	0.011	0.021
	Cr	Ni	Mo	Cu	-
As Welded	11.83	0.19	0.35	0.33	-

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

Stainless Steel MIG Wire

CONFORMANCE

ASME SFA/AWS A5.9 ER430

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

DESCRIPTION

BLUME® ER430 is a mixed gas shielded MIG welding wire made from 17Cr ferritic stainless steel. It delivers excellent welding performance with a stable arc, minimal spatter, smooth wire feeding, and a clean weld bead appearance. Suitable for all-position welding, it offers good crack resistance and is ideal for applications requiring wear resistance.

TYPICAL APPLICATION

BLUME® ER430 is suitable for welding 10Cr17 stainless steel, it is commonly used in industries such as food processing and medical equipment manufacturing.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	565
Elongation, % (L=4d)	28

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.035	0.43	0.35	0.018	0.012
	Cr	Ni	Mo	Cu	-
As Welded	16.39	0.22	0.55	0.21	-

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

Stainless Steel MIG Wire

CONFORMANCE

ASME SFA/AWS A5.9 ER630

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

TYPICAL APPLICATION

DESCRIPTION

BLUME® ER630 is a gas-shielded MIG welding wire made from 17Cr-4Ni-4Cu-Nb martensitic stainless steel. It offers excellent welding characteristics, including a stable arc, low spatter, smooth wire feeding, and a clean weld bead appearance. Suitable for all-position welding, it provides strong crack resistance and is ideal for applications requiring corrosion resistance.

BLUME® ER630 is suitable for welding corrosion-resistant components of steam turbines and is commonly used in locomotive and vehicle manufacturing.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	988
Elongation, % (L=4d)	12

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.032	0.50	0.32	0.011	0.012
	Cr	Ni	Mo	Cu	-
As Welded	16.55	4.63	0.45	3.40	-

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.9 ER2209

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂
WELDING POSITION

All Position

DESCRIPTION

BLUME® ER2209 is a mixed gas shielded MIG welding wire made from 22Cr-9Ni-3Mo-N duplex (austenitic-ferritic) stainless steel. It offers excellent welding characteristics, including a stable arc, low spatter, smooth wire feed, and a clean bead profile. Suitable for all-position welding, it provides strong crack resistance and is ideal for joining duplex stainless steels.

TYPICAL APPLICATION

BLUME® ER630 is suitable for welding 022Cr22Ni5Mo3N, this product is commonly used in industries such as petrochemicals, shipbuilding, and related applications.

MECHANICAL PROPERTIES

	AWS Requirement	As-Welded with CO ₂
Tensile Strength, MPa		730
Elongation, % (L=4d)		26

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.023	1.62	0.40	0.009	0.011
	Cr	Ni	Mo	Cu	-
As Welded	22.5	8.75	3.23	0.18	-

Stainless Steel MIG Wire
SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.

CONFORMANCE

ASME SFA/AWS A5.9 ER2594

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂
WELDING POSITION

All Position

DESCRIPTION

BLUME® ER2594 is a mixed gas shielded MIG welding wire designed for austenitic-ferritic duplex stainless steel. It delivers excellent welding performance, featuring a stable arc, low spatter, smooth wire feeding, and a clean bead appearance. Suitable for all-position welding, it offers strong crack resistance and is ideal for welding duplex stainless steel materials.

TYPICAL APPLICATION

BLUME® ER2594 is suitable for welding 022Cr25Ni10Mo3N, this product is widely used in industries such as petrochemicals, shipbuilding, and related applications.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Tensile Strength, MPa	830
Elongation, % (L=4d)	27

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.021	2.10	0.56	0.009	0.011
	Cr	Ni	Mo	Cu	-
As Welded	25.6	9.75	3.25	0.15	-

CONFORMANCE

ASME SFA/AWS A5.9 ER2594

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂
WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 150	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	140 - 220	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.



blume® ERNiCr-3

Nickel Alloy MIG Wire



CONFORMANCE

ASME SFA/AWS A5.14 ERNiCr-3

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

DESCRIPTION

BLUME® ERNiCr-3 is a MIG welding wire known for its excellent corrosion resistance and strong crack resistance in the weld bead.

TYPICAL APPLICATION

BLUME® ERNiCr-3 is suitable for welding nickel-based and iron-nickel-based high-temperature, corrosion-resistant alloys such as Inconel 600 and Incoloy 800, and also applicable for joining dissimilar steels.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Yield Strength, MPa	384
Tensile Strength, MPa	645
Elongation, % (L=4d)	47

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P	Al
As Welded	0.038	3.40	0.14	0.003	0.003	0.01
	Cr	Ni	Nb	Cu	Fe	Ti
As Welded	21.0	70.28	2.50	0.15	0.79	0.40



ERNiCr-3

Nickel Alloy MIG Wire



CONFORMANCE

ASME SFA/AWS A5.14 ERNiCr-3

SHIELDING GAS

99% - 97% Ar + 1% - 3% O₂

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 190	-
.040" (1.0mm)	100 - 200	-
.045" (1.2mm)	160 - 280	-
1/16" (1.6mm)	200 - 350	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm), 44 lbs (20 kgs) [Net Weight] Plastic spools with OD = 12" (300mm) and 550lbs (250 kgs) [Net Weight] Drum.



blume®

ERNiCrMo-3

Nickel Alloy MIG Wire



CONFORMANCE

ASME SFA/AWS A5.14 ERNiCrMo-3

SHIELDING GAS

75% Argon and 25% Helium

WELDING POSITION

All Position

DESCRIPTION

BLUME® ERNiCrMo-3 provides excellent resistance to oxidising and reducing environments. The high molybdenum content provides good stress resistance, avoids pitting and corrosion resistance at crevices. The BLUME® ERNiCrMo-3 is a popular nickel alloy for cladding. Usually used with Argon + Helium.

TYPICAL APPLICATION

BLUME® ERNiCrMo-3 used for MIG welding of nickel-chromium-molybdenum alloys. This filler metal may be used for cladding and welding of dissimilar base metals such as nickel-chromium-molybdenum alloys to stainless and carbon steels.

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.01	0.108	0.0036	0.001	0.003
	Cr	Ni	Cu	Ti	Al
As Welded	22.40	64.00	0.001	0.151	0.15
	Nb	Fe	Mo	-	-
As Welded	3.60	0.40	8.80	-	-

SUGGESTED WELDING PARAMETERS

Diameter	Volts	Amps
.045" (1.2mm)	28 - 32	180 - 220
1/16" (1.6mm)	29 - 33	200 - 250



blume®

ERNiCrMo-3

Nickel Alloy MIG Wire



CONFORMANCE

ASME SFA/AWS A5.14 ERNiCrMo-3

SHIELDING GAS

75% Argon and 25% Helium

WELDING POSITION

All Position

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm)



ERNiCrMo-4

Nickel Alloy MIG Wire



CONFORMANCE
ASME SFA/AWS A5.14 ERNiCrMo-4

SHIELDING GAS

75% Argon and 25% Helium

WELDING POSITION

All Position

DESCRIPTION

BLUME® ERNiCrMo-4 produces welds with exceptional crack resistance and strong corrosion resistance in a wide range of aggressive environments, particularly offering excellent protection against pitting and crevice corrosion.

TYPICAL APPLICATION

BLUME® ERNiCrMo-4 is suitable for welding Ni-Cr-Mo alloys, as well as for dissimilar metal welding between steel and nickel-based alloys. It is also applicable for surfacing applications on steel.

MECHANICAL PROPERTIES

MECHANICAL PROPERTIES	
	As-Welded with CO2
Yield Point, MPa	497
Tensile Strength, MPa	749
Elongation, % (L=4d)	41

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.008	0.35	0.05	0.002	0.005
	Cr	Ni	Cu	Co	W
As Welded	15.0	56.8	0.03	0.03	3.69
	V	Mo	Fe	-	-
As Welded	0.02	16.55	6.0	-	-



blume®

ERNiCrMo-4

Nickel Alloy MIG Wire



CONFORMANCE

ASME SFA/AWS A5.14 ERNiCrMo-4

SHIELDING GAS

75% Argon and 25% Helium

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 190	-
.035" (0.9mm)	100 - 200	-
.045" (1.2mm)	160 - 280	-
1/16" (1.6mm)	200 - 350	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm)



blume®

ERNiCrMo-10

Nickel Alloy MIG Wire



CONFORMANCE
ASME SFA/AWS A5.14 ERNiCrMo-10

SHIELDING GAS

75% Argon and 25% Helium

WELDING POSITION

All Position

DESCRIPTION

BLUME® ERNiCrMo-10 produces welds with exceptional crack resistance, excellent high-temperature strength, and strong corrosion resistance in a variety of aggressive environments—particularly effective against pitting and crevice corrosion.

TYPICAL APPLICATION

BLUME® ERNiCrMo-10 is suitable for welding Ni-Cr-Mo alloys such as No6022, as well as for dissimilar welding between steel and nickel-based alloys, and for surfacing applications on steel.

MECHANICAL PROPERTIES

	As-Welded with CO2
Yield Point, MPa	541
Tensile Strength, MPa	755
Elongation, % (L=4d)	40.5

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.008	0.18	0.05	0.003	0.005
	Cr	Ni	Cu	Co	W
As Welded	22.0	57.7	0.02	0.03	3.20
	V	Mo	Fe	-	-
As Welded	0.02	13.85	2.58	-	-



blume®

ERNiCrMo-10

Nickel Alloy MIG Wire



CONFORMANCE

ASME SFA/AWS A5.14 ERNiCrMo-10

SHIELDING GAS

75% Argon and 25% Helium

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Amps	-
.030" (0.8mm)	70 - 190	-
.035" (0.9mm)	100 - 200	-
.045" (1.2mm)	160 - 280	-
1/16" (1.6mm)	200 - 350	-

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm)



blume®

ERNi-1

Nickel Alloy MIG Wire

DESCRIPTION

BLUME® ERNi-1 Provides welds with excellent resistance to cracking and outstanding corrosion resistance, particularly in alkaline environments.



CONFORMANCE

ASME SFA/AWS A5.14 ERNi-1

SHIELDING GAS

100% Ar; 0.5% + 95% He + Ar

WELDING POSITION

All Position

TYPICAL APPLICATION

BLUME® ERNi-1 is suitable for welding commercially pure nickel forgings and castings, such as Nickel 200 and 201. It can also be used for joining copper-nickel alloys, nickel-based alloys, and iron-based alloys.

MECHANICAL PROPERTIES

	As-Welded with CO2
Yield Point, MPa	340
Tensile Strength, MPa	541
Elongation, % (L=4d)	36

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.005	0.47	0.30	0.002	0.003
	Ni	Cu	Fe	Al	Ti
As Welded	95.87	0.014	0.098	0.60	2.38



blume®

ERNi-1

Nickel Alloy MIG Wire



CONFORMANCE

ASME SFA/AWS A5.14 ERNi-1

SHIELDING GAS

100% Ar; 0.5% + 95% He + Ar

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Flat and Horizontal	Vertical Up
	Amps	Amps
.030" (0.8mm)	70 - 150	70 - 120
.035" (0.9mm)	100 - 200	100 - 170
.045" (1.2mm)	140 - 220	140 - 200
1/16" (1.6mm)	180 - 300	180 - 250

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm)

DESCRIPTION

BLUME® ERNiCu-7 is a MIG welding wire designed for nickel-copper alloys such as Monel® 400 and R405. It offers excellent corrosion resistance in seawater and alkaline environments, along with good crack resistance and weldability.

TYPICAL APPLICATION

BLUME® ERNiCu-7 is suitable for welding Monel-series nickel-copper alloys. It offers excellent corrosion resistance in seawater and alkaline salt environments, making it ideal for use in marine engineering, shipbuilding, and the chemical industry.

MECHANICAL PROPERTIES

	As-Welded with CO2
Yield Point, MPa	320
Tensile Strength, MPa	529
Elongation, % (L=4d)	39

UNDILUTED WELD METAL ANALYSIS (WT%)

	C	Mn	Si	S	P
As Welded	0.002	3.10	0.173	0.005	0.003
	Ni	Cu	Fe	Al	Ti
As Welded	64.8	28.45	0.10	0.19	2.50



ERNiCu-7

Nickel Alloy MIG Wire



CONFORMANCE

ASME SFA/AWS A5.14 ERNiCu-7

SHIELDING GAS

100% Ar; 0.5% + 95% He + Ar

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Flat and Horizontal	Vertical Up
	Amps	Amps
.030" (0.8mm)	70 - 150	70 - 120
.035" (0.9mm)	100 - 200	100 - 170
.045" (1.2mm)	140 - 220	140 - 200
1/16" (1.6mm)	180 - 300	180 - 250

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm)

DESCRIPTION

BLUME® ER1070 is a pure aluminum welding wire containing $\geq 99.7\%$ Al. It offers excellent welding characteristics, including a stable arc, minimal spatter, and a clean, bright weld appearance. The deposited metal delivers superior electrical and thermal conductivity along with excellent machinability. Outstanding resistance to chemical corrosion and cracking. Excellent color match after anodizing.

TYPICAL APPLICATION

BLUME® ERNiCu-7 is suitable for welding pure aluminum or low-alloy aluminum materials, commonly used in industries such as railway locomotives, electric power, chemical processing, and food production.

MECHANICAL PROPERTIES

	As-Welded with CO ₂
Yield Point, MPa	320
Tensile Strength, MPa	529
Elongation, % (L=4d)	39

UNDILUTED WELD METAL ANALYSIS (WT%)

	Mn	Si	Fe	Cu	Mg
As Welded	0.003	0.06	0.08	0.006	0.005
	Zn	V	Ti	Al	Be
As Welded	0.001	0.005	0.008	99.70	0.0001



blume® ER1070

Aluminum MIG Wire



CONFORMANCE

ASME SFA/AWS A5.10 ER1070

SHIELDING GAS

100% Ar; 0.5% + 95% He + Ar

WELDING POSITION

All Position

SUGGESTED WELDING PARAMETERS

Diameter	Flat and Horizontal	Vertical Up
	Amps	Amps
.030" (0.8mm)	70 - 150	70 - 120
.035" (0.9mm)	100 - 200	100 - 170
.045" (1.2mm)	140 - 220	140 - 200
1/16" (1.6mm)	180 - 300	180 - 250

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm)

DESCRIPTION

BLUME® ER4043 is a aluminium welding wire. Tailored for welding heat-treatable base alloys, particularly the 6XXX series, this filler alloy exhibits a lower melting point and greater fluidity compared to the 5XXX series. It demonstrates low susceptibility to weld cracking when used with 6XXX series base alloys and is appropriate for continuous elevated temperature applications surpassing 65° C (150° F). However, it's not advisable for materials intended for anodization.

TYPICAL APPLICATION

BLUME® ER4043 is suitable for welding 6XXX alloys and the majority of casting alloys, it's commonly employed in automotive components like frames and drive shafts, as well as in constructing bicycle frames.

UNDILUTED WELD METAL ANALYSIS (WT%)

	Al	Mn	Si	Fe	Cu
As Welded	Bal	0.009	4.5 - 6.0	0.16	0.009
	Mg	Zn	Ti	Be	Cr
As Welded	0.007	0.005	0.068	0.0001	-

SUGGESTED WELDING PARAMETERS

Diameter	Flat	Vertical Up	Overhead
	Amps	Amps	Amps
.045" (1.2mm)	80 - 350	120 - 160	120 - 160



CONFORMANCE
ASME SFA/AWS A5.10 ER4043

SHIELDING GAS
100% Ar or 75% Ar + 25% He

WELDING POSITION
All Position

Aluminum MIG Wire

SUGGESTED WELDING PARAMETERS

Diameter	Flat	Vertical Up	Overhead
	Amps	Amps	Amps
1/16" (1.6mm)	350 - 500	120 - 220	110 - 210

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm)

DESCRIPTION

BLUME® ER4047 is a eutectic aluminum-silicon welding wire containing approximately 12% silicon. It delivers excellent welding performance, featuring a stable arc, low spatter, and a clean, bright weld appearance. Compared to ER4043, ER4047 offers a lower melting point and a narrower solidification range, resulting in improved molten pool fluidity. These properties help minimize the risk of hot cracking and enhance the shear strength of fillet welds.

TYPICAL APPLICATION

BLUME® ER4043 is suitable for welding a wide range of cast and extruded aluminum alloys, including thin aluminum components, condensers, air conditioning tubing, automotive radiators, and fuel or oil tanks.

UNDILUTED WELD METAL ANALYSIS (WT%)

	Al	Mn	Si	Fe	Cu
As Welded	Bal	0.004	12.1	0.15	0.006
	Mg	Zn	Be	-	-
As Welded	0.020	0.005	0.0001	-	-

SUGGESTED WELDING PARAMETERS

Diameter	Flat	Vertical Up	Overhead
	Amps	Amps	Amps
.045" (1.2mm)	80 - 350	120 - 160	120 - 160

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm)

DESCRIPTION

BLUME® ER5356 is a general-purpose aluminum-magnesium welding wire containing approximately 5% magnesium. It offers excellent welding characteristics, including a stable arc, low spatter, and a clean, bright weld appearance. Ideal for welding or overlaying cast and wrought aluminum alloys containing 5% magnesium, delivering high strength, good ductility, and outstanding corrosion resistance.

TYPICAL APPLICATION

BLUME® ER5356 is suitable for welding Al-Mg, Al-Mg-Zn, Al-Mg-Mn, and Al-Mg-Si alloys used in automotive components, shipbuilding, railway vehicles, chemical pressure vessels, general manufacturing, and related industries.

UNDILUTED WELD METAL ANALYSIS (WT%)

	Al	Mn	Si	Fe	Cu
As Welded	Bal	0.12	0.04	0.15	0.016
	Mg	Zn	Be	-	-
As Welded	4.80	0.004	0.0001	-	-

SUGGESTED WELDING PARAMETERS

Diameter	Flat	Vertical Up	Overhead
	Amps	Amps	Amps
.045" (1.2mm)	80 - 350	120 - 160	120 - 160
1/16" (1.6mm)	350 - 500	120 - 220	110 - 210



Aluminum MIG Wire



CONFORMANCE
ASME SFA/AWS A5.10 ER5356

SHIELDING GAS
100% Ar or 75% Ar + 25% He

WELDING POSITION
All Position

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm)

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	Mg	Zn	Be	-	-
As Welded	4.80	0.004	0.0001	-	-

SUGGESTED WELDING PARAMETERS

Diameter	Flat	Vertical Up	Overhead
	Amps	Amps	Amps
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1/16" (1.6mm)	350 - 500	120 - 220	110 - 210



blume®

ER5183

Aluminum MIG Wire



CONFORMANCE

ASME SFA/AWS A5.10 ER5183

SHIELDING GAS

100% Ar or 75% Ar + 25% He

WELDING POSITION

All Position

PACKAGING

33 lbs (15 kgs) [Net Weight] Plastic spools with OD = 11" (270mm)