

## F Cr-Mo 1L

**CODIFICATION:** AWS : SFA 5.28 ER70S-B2L

### CHARACTERISTICS AND APPLICATIONS:

F Cr-Mo 1L is a copper-coated solid wire for GTAW, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality welds. It is suitable for welding low carbon 1.25Cr - 0.5Mo steel. The weld metal possesses good high temperature properties. It deposits notch free weld deposit with excellent mechanical properties. Especially suitable for welding of pipes & tubes of matching composition in Power plants, Refineries, Petrochemicals, Fertilizer plants, etc. Suitable for welding of ASTM steels: Grade F2, F11, F12 class 1 & 2 of SA-182, Grade T11 of SA-199, Grade T2, T11 & T12 of SA-213, Grade WC6 of SA-217, Grade P2, P11 & P12 of SA-335, Grade FP2, FP11 & FP12 of SA-369, Grade 2, 11 & 12 of SA-387, Grade CP2, CP11 & CP12 of SA-426, etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Cr	Mo	Cu
%	0.04	0.50	0.55	0.010	0.012	1.30	0.55	0.10

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

(PWHT: 620°C FOR 1 HR)

UTS	YS	Elongation
(MPa)	(MPa)	(L = 4d) %
530	450	21

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

### PACKING:

**STANDARD SIZE** Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.

**QUANTITY** 5 kg wire put in an air-tight polythene bag and finally packed in a plastic container.  
 Identification AWS code is punched on each wire.



## F Cr-Mo 1 (MOD)

**CODIFICATION:** AWS : SFA 5.28 ER80S-B2

### CHARACTERISTICS AND APPLICATIONS:

F Cr-Mo 1 (MOD) is a copper-coated solid wire for GTAW, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. This wire having lesser impurities i.e. S, P, will improve the subzero impact property. It gives radiographic quality welds. It is suitable for welding 1.25Cr - 0.5Mo steel. The weld metal possesses good high temperature properties. It deposits notch free weld deposit with excellent mechanical properties. Especially suitable for welding of pipes & tubes of matching composition in Power plants, Refineries, Petrochemicals, Fertilizer plants, etc. Suitable for welding of ASTM steels: Grade F2, F11, F12 class 1 & 2 of SA-182, Grade T11 of SA-199, Grade T2, T11 & T12 of SA-213, Grade WC6 of SA-217, Grade P2, P11 & P12 of SA-335, Grade FP2, FP11 & FP12 of SA-369, Grade 2, 11 & 12 of SA-387, Grade CP2, CP11 & CP12 of SA-426, etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Cr	Mo	Cu	Sn	As	Sb
%	0.08	0.50	0.45	0.007	0.009	1.30	0.50	0.05	0.003	0.003	0.002

X-factor:  $(10P + 5Sb + 4Sn + As) / 100 \leq 12$  ppm (elements in ppm)

J-factor:  $(Mn + Si) \times (P + Sn) 10^4 \leq 120$

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

(PWHT: 620°C FOR 1 HR)

UTS	YS	Elongation	CVN Impact Strength
(MPa)	(MPa)	(L=4d) %	at minus 20°C (Joules)
620	550	24	80

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

### PACKING:

**STANDARD SIZE** Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.

**QUANTITY** 5 kg wire put in an air-tight polythene bag and finally packed in a plastic container.

Identification AWS code is punched on each wire.



## F Cr-Mo 2

**CODIFICATION:** AWS : SFA 5.28 ER90S-B3

### CHARACTERISTICS AND APPLICATIONS:

F Cr-Mo 2 is a copper-coated solid wire for GTAW, available in bright finish. The wire gives stable arc, smooth welding performances and deposits radiographic quality welds. It is suitable for welding 2.25Cr-1Mo steel. The weld metal possesses good high temperature properties. It deposits notch free weld deposit with excellent mechanical properties. Especially suitable for welding of pipes and tubes of matching composition in Power plants, Refineries, Petrochemicals, Fertilizer plants, etc. Suitable for welding of ASTM steels: Grade F22 (class 1 & 3) of SA-182 and SA-336, Grade T4, T22 of SA-199, Grade T22 of SA-213, Grade WC9 of SA-217, Grade P22 of SA-335, Grade FP22 of SA-369, Grade 22, 22L of SA-387, Grade CP22 of SA-426, Grade 22 of SA-541, Class 1 of A, B types of SA-542, etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Cr	Mo	Cu
%	0.09	0.50	0.55	0.010	0.012	2.50	1.10	0.10

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

(PWHT: 690°C FOR 1 HR)

UTS	YS	Elongation
(MPa)	(MPa)	(L=4d) %
680	600	20

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

**APPROVAL:** BHEL, BV, CIB-MP, L&T Power, Reliance (SASAN Power)

### PACKING:

**STANDARD SIZE** Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.

**QUANTITY** 5 kg wire put in an air-tight polythene bag and finally packed in a plastic container.

Identification AWS code is punched on each wire.



## F Cr-Mo 2L

**CODIFICATION:** AWS : SFA 5.28 ER80S-B3L

### CHARACTERISTICS AND APPLICATIONS:

F Cr-Mo 2L is a copper-coated solid wire for GTAW, available in bright finish. The wire gives stable arc, smooth welding performances and deposits radiographic quality welds. It is suitable for welding low carbon 2.25Cr - 1Mo steel. The weld metal possesses good high temperature properties. It deposits notch free weld deposit with excellent mechanical properties. Especially suitable for welding of pipes and tubes of matching composition in Power plants, Refineries, Petrochemicals, Fertilizer plants, etc. Suitable for welding of ASTM steels: Grade F22 (class 1 & 3) of SA-182 and SA-336, Grade T4, T22 of SA-199, Grade T22 of SA-213, Grade WC9 of SA-217, Grade P22 of SA-335, Grade FP22 of SA-369, Grade 22, 22L of SA-387, Grade CP22 of SA-426, Grade 22 of SA-541, Class 1 of A, B types of SA-542, etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Cr	Mo	Cu
%	0.04	0.50	0.55	0.010	0.012	2.50	1.10	0.10

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

(PWHT: 690°C FOR 1 HR)

UTS	YS	Elongation
(MPa)	(MPa)	(L = 4d) %
580	500	20

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

### PACKING:

STANDARD SIZE	Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.
QUANTITY	5 kg wire put in an air-tight polythene bag and finally packed in a plastic container. Identification AWS code is punched on each wire.

## F Cr-Mo 2 (MOD)

**CODIFICATION:** AWS : SFA 5.28 ER90S-B3

### CHARACTERISTICS AND APPLICATIONS:

F Cr-Mo 2 (MOD) is a copper-coated solid wire for GTAW, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. This wire having lesser impurities i.e. S, P, will improve the subzero impact property. It gives radiographic quality welds. It is suitable for welding 2.25Cr-1Mo steel. The weld metal possesses good high temperature properties. It deposits notch free weld deposit with excellent mechanical properties. Especially suitable for welding of pipes and tubes of matching composition in Power plants, Refineries, Petrochemicals, Fertilizer plants, etc. Suitable for welding of ASTM steels: Grade F22 (class 1 & 3) of SA-182 and SA-336, Grade T4, T22 of SA-199, Grade T22 of SA-213, Grade WC9 of SA-217, Grade P22 of SA-335, Grade FP22 of SA-369, Grade 22, 22L of SA-387, Grade CP22 of SA-426, Grade 22 of SA-541, Class 1 of A, B types of SA-542, etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Cr	Mo	Cu	Sn	As	Sb
%	0.08	0.46	0.50	0.007	0.009	2.50	1.00	0.05	0.003	0.003	0.002

X-factor:  $(10P + 5Sb + 4Sn + As) / 100 \leq 12$  ppm (elements in ppm)

J-factor:  $(Mn + Si) \times (P + Sn) 10^4 \leq 120$

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

(PWHT: 690°C FOR 1 HR)

UTS	YS	Elongation	CVN Impact Strength
(MPa)	(MPa)	(L=4d) %	at minus 20°C (Joules)
680	600	22	50

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

**PACKING:**

**STANDARD SIZE** Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.

**QUANTITY** 5 kg wire put in an air-tight polythene bag and finally packed in a plastic container.

Identification AWS code is punched on each wire.

## F Cr-Mo 5

**CODIFICATION:** AWS : SFA 5.28 ER80S-B6

### CHARACTERISTICS AND APPLICATIONS:

F Cr-Mo 5 is a copper-coated solid wire for GTAW, available in bright finish. The wire gives stable arc, smooth welding performances and deposits radiographic quality welds. It is suitable for welding 5Cr-0.5Mo steel. The weld metal possesses good high temperature properties. The weld metal possesses excellent creep property up to 550°C. Especially suitable for welding of pipes and tubes of matching composition in Power plants, Refineries, Petrochemicals, Fertilizer plants, etc. Suitable for welding of ASTM steels: Grade F5/F5a & F21 of SA-182, Grade T4, T22 of SA-199, Grade T22 of SA-213, Grade C5 of SA-217, Grade P22 of SA-335, Grade F5 & F21 (class 1&3) of SA-336, Grade FP5, FP21 of SA-369, Grade 5, 21 & 21L of SA-387, Grade CP5, CP21 of SA-426, Class 4, 4a of E types of SA-542, etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Cr	Mo	Cu
%	0.06	0.50	0.40	0.010	0.012	5.20	0.55	0.10

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

(PWHT: 745°C FOR 1 HR)

UTS	YS	Elongation
(MPa)	(MPa)	(L=4d) %
600	520	25

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

### PACKING:

**STANDARD SIZE** Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.

**QUANTITY** 5 kg wire put in an air-tight polythene bag and finally packed in a plastic container.

Identification AWS code is punched on each wire.



## F Cr-Mo 9

**CODIFICATION:** AWS : SFA 5.28 ER80S-B8

### CHARACTERISTICS AND APPLICATIONS:

F Cr-Mo 9 is a copper-coated solid wire for GTAW, available in bright finish. The wire gives stable arc, smooth welding performances and deposits radiographic quality welds. It is designed for creep resistant steels. It is used for welding base metal of similar compositions, usually in the form of pipe or tubing. Typical applications include welding of A387 Grade 9 plate, A335 P9 pipe, A213 T9 tubes, etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Cr	Mo	Cu
%	0.08	0.60	0.30	0.020	0.020	9.00	1.00	0.10

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

(PWHT: 745°C FOR 1 HR)

UTS	YS	Elongation
(MPa)	(MPa)	(L = 4d) %
570	500	18

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

### PACKING:

**STANDARD SIZE** Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.

**QUANTITY** 5 kg wire put in an air-tight polythene bag and finally packed in a plastic container.

Identification AWS code is punched on each wire.

## F Cr-Mo 91

**CODIFICATION:** AWS : SFA 5.28 ER90S-B9

### CHARACTERISTICS AND APPLICATIONS:

F Cr-Mo 91 is copper-coated a solid wire for GTAW, yielding 9%Cr - 1%Mo and modified with Niobium, Vanadium and Nitrogen designed to provide improved creep strength, toughness, fatigue life, oxidation and corrosion resistance at elevated temperatures. The wire gives stable arc, smooth welding performance and deposits radiographic quality welds. F Cr-Mo 91 designed to weld the materials in power plant, refineries, naptha cracker units, etc. Following are some of the steels that can be welded with this wire.

I) Plate: A 387 Gr.91 (II) Pipes: A 335-P91 (III) Tubes: A 213-T91

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE :

Element :	C	Mn	Si	P	S	Cr	Ni	Mo	V	Nb	N	Al	Cu
Percent :	0.11	0.95	0.25	0.007	0.008	9.35	0.35	1.0	0.2	0.03	0.04	0.02	0.10

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

(PWHT: 760°C FOR 2 HRS)

UTS	YS	Elongation
(MPa)	(MPa)	(L=4d) %
680	550	21

**SHIELDING GAS:** Argon

**CURRENT CONDITIONS:** DCEN

**WELDING POSITION:** H, F, VU, OH

**APPROVALS:** Adani Infra, CIB-MP, L&T Power, Reliance (SASAN Power)

### PACKING:

**STANDARD SIZE** Diameter 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.

**QUANTITY** 5 kg wire put in an air-tight polythene bag and finally packed in a plastic container.

Identification AWS code is punched on each wire.





## F Cr-Mo 92

**CODIFICATION:** AWS : SFA 5.28 ER90S-G

### CHARACTERISTICS AND APPLICATIONS:

F Cr-Mo 92 is a copper-coated solid wire for GTAW, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. The weld metal content 9Cr 1Mo and enriched with Niobium, Vanadium, Nitrogen and tungsten. Tungsten additions provides adequate creep rupture strength at higher steam pressures and temperatures. The controlled addition of alloying elements improves the toughness and weldability. Wire is specially designed to weld advanced materials, which are being used to improve thermal efficiency in power plant, refineries etc. Ideal for welding steels of similar composition to achieve adequate creep rupture strength. Some typical materials where this electrode can be used are P92, Rotor Steel, E911 steels, GX12CrMoWVNbW11 etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	P	S	Cr	Ni	Mo	V	Nb	N	Al	Cu	W
%	0.12	0.42	0.30	0.009	0.007	9.20	0.38	0.95	0.19	0.062	0.043	0.02	0.05	1.0

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

(PWHT: 760°C FOR 2 HR)

UTS	YS	Elongation
(MPa)	(MPa)	(L = 4d) %
800	620	19

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

### PACKING:

**STANDARD SIZE** Diameter 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.

**QUANTITY** 5 kg wire put in an air-tight polythene bag and finally packed in a plastic container.

Identification AWS code is punched on each wire.

## FMn-Mo

**CODIFICATION:** AWS : SFA 5.28 ER80S-G

### CHARACTERISTICS AND APPLICATIONS:

F Mn-Mo is a copper-coated solid wire for GTAW, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality welds. It is suitable for welding high strength fine-grained structural steels containing ~ 0.5% Mo. The wire is also suitable for welding of penstock pipe-line, fabrication of earth moving equipments, etc. where high tensile strength property is desired from the weld metal. Suitable for welding of ASTM steels: SA-455/ SA-455M, Gr.60, Gr.65 steels of SA-515/ SA-515M, Gr.60, Gr.65 steels of SA-516/ SA-516M, Class 1 of A, B, C, D grades of SA-533/ SA-533M, etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Mo	Cu
%	0.06	1.75	0.53	0.010	0.015	0.40	0.15

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL :

UTS	YS	Elongation
(MPa)	(MPa)	(L=4d) %
640	540	23.0

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

### PACKING :

STANDARD SIZE	Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.
QUANTITY	5 kg wire put in an air-tight polythene bag and finally packed in a plastic container.
	Identification AWS code is punched on each wire.



## F 80S-D2

**CODIFICATION:** AWS : SFA 5.28 ER80S-D2

### CHARACTERISTICS AND APPLICATIONS:

F 80S-D2 is a copper-coated solid wire for GTAW, available in bright finish. The wire gives stable arc, smooth welding performances and deposits radiographic quality welds. It is recommended for welding of molybdenum (~ 0.5%) containing high strength fine-grained structural steels. The wire also is suitable for welding of penstock pipe-line, fabrication of earth moving equipments, etc. where high tensile strength property is desired from the weld metal. Suitable for welding of ASTM steels: SA-455/ SA-455M, Gr.60, Gr.65 steels of SA-515/ SA-515M, Gr.60, Gr.65 steels of SA-516/SA-516M, Class 1 of A, B, C, D grades of SA-533/ SA-533M, etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Mo	Cu
%	0.075	1.78	0.55	0.014	0.015	0.45	0.15

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

UTS	YS	Elongation	CVN Impact Strength
(MPa)	(MPa)	(L = 4d) %	at minus 30°C (Joules)
680	560	22	55

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

### PACKING:

STANDARD SIZE	Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.
QUANTITY	5 kg wire put in an air-tight polythene bag and finally packed in a plastic container. Identification AWS code is punched on each wire.



## F 80S-Ni1

**CODIFICATION:** AWS : SFA 5.28 ER80S-Ni1

### CHARACTERISTICS AND APPLICATIONS:

F 80S-Ni1 is a copper-coated solid wire available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It is specially designed to produce weld metal with increase strength and notch toughness at temperature up to minus 45°C. It gives radiographic quality welds. Ideally suitable for welding fine grained and Nickel steels. Typical applications include storage tanks for liquefied gases, distillers in coke oven batteries and petrochemical industries.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Ni	Cr	Mo	V	Cu
%	0.06	0.50	0.60	0.010	0.012	1.00	0.05	0.25	0.02	0.20

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

UTS	YS	Elongation	CVN Impact strength
(MPa)	(MPa)	(L = 4d) %	at minus 45°C (Joules)
600	520	28.0	75

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

### PACKING:

**STANDARD SIZE:** Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.

**QUANTITY** 5 kg wire put in an air-tight polythene bag and finally packed in a plastic container.  
Identification – AWS code is punched on each wire.

## F 80S-Ni2

**CODIFICATION:** AWS : SFA 5.28 ER80S-Ni2

### CHARACTERISTICS AND APPLICATIONS:

F 80S-Ni2 is a copper-coated solid wire available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It is specially designed to produce weld metal with increase strength and notch toughness at temperature up to minus 60°C. It gives radiographic quality welds. Ideally suitable for welding fine grained and Nickel steels. Typical applications include containers and piping systems and tanks used for storage, transportation of liquefied propane and butane, A&P brackets etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Ni	Cu
%	0.06	0.50	0.60	0.010	0.012	2.50	0.20

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

(PWHT: 620°C FOR 1 HR)

UTS	YS	Elongation	CVN Impact strength
(MPa)	(MPa)	(L = 4d) %	at minus 60°C (Joules)
600	520	28.0	75

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

### PACKING :

**STANDARD SIZE:** Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.

**QUANTITY** 5 kg wire put in an air-tight polythene bag and finally packed in a plastic container.  
 Identification – AWS code is punched on each wire.

## F 90S-D2

**CODIFICATION:** AWS : SFA 5.28 ER90S-D2

### CHARACTERISTICS AND APPLICATIONS:

F 90S-D2 is a copper-coated solid wire available in bright finish. The wire gives stable arc, smooth welding performances and deposits radiographic quality welds. This wire is recommended for welding of molybdenum (~ 0.5%) containing high strength fine-grained structural steels. The wire also is suitable for welding of penstock pipe-line, fabrication of earth moving equipments, etc. where high tensile strength property is desired from the weld metal. Suitable for welding of ASTM steels: SA-455/ SA-455M, Gr.60, Gr.65, Gr.70 steels of SA-515/ SA-515M, Gr.60, Gr.65, Gr.70 steels of SA-516/ SA-516M, Class 1 of A grades of SA-533/ SA-533M, etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Mo	Cu
%	0.075	1.78	0.55	0.014	0.015	0.45	0.15

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

UTS	YS	Elongation	CVN Impact Strength
(MPa)	(MPa)	(L=4d) %	at minus 30°C (Joules)
680	560	22.0	55

**SHIELDING GAS:** Argon

**CURRENT CONDITIONS:** DCEN

**WELDING POSITION:** H, F, VU, OH

### PACKING:

**STANDARD SIZE** Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.

**QUANTITY** 5 kg wire put in an air-tight polythene bag and finally packed in a plastic container.

Identification – AWS code is punched on each wire.



## F 100S-G

**CODIFICATION:** AWS : SFA 5.28 ER100S-G

### CHARACTERISTICS AND APPLICATIONS:

F 100S-G is a copper-coated solid wire available in bright finish, gives smooth flow, stable arc spatter free under optimum welding conditions. The weld metal displays excellent crack resistance and produces sound weld metal possessing excellent strength combined with good impact properties. It gives radiographic quality welds. It is ideally suited for welding of high strength Q&T steels, like WEL-TEN80, SA 517 SA335 P36 grades, WB36 pipes, and their equivalent grades.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	Cu	Ni	Mo	Cr	Nb	Al	S	P
%	0.08	1.0	0.40	0.60	1.2	0.40	0.20	0.02	0.02	0.014	0.018

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

UTS	YS	Elongation
(MPa)	(MPa)	(L = 4d) %
720	620	22.0

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

**APPROVALS:** Reliance (SASAN Power)

### PACKING:

**STANDARD SIZE:** Diameter 1.6 mm, 2.0 mm, 2.5 mm & 3.2 mm in cut | lengths of 500 mm / 1000 mm each.

**QUANTITY** 5 kg wire put in an air-tight polythene bag and finally packed in a plastic container.  
Identification – AWS code is punched on each wire.



## FC - Mo

**CODIFICATION :** AWS : SFA 5.28 ER70S-A1

### CHARACTERISTICS AND APPLICATIONS:

FC-Mo is a copper-coated solid wire for GTAW, available in bright finish. The wire gives stable arc, smooth welding performances and deposits radiographic quality welds. It is ideally suited for welding of low alloy ferritic steels of similar composition. The weld metal possesses good high temperature properties. Typical applications include the welding of Carbon Molybdenum steels such as, ASTM Grade F1 of SA-182 & SA-336, Grade A of SA-204, Grade T1/T1a/T1b of SA-209, Grade WC1 of SA-217, Grade A of SA-302, Grade P1 of SA-335, Class 1 of A grades of SA-533, etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Mo	Cu
%	0.065	1.20	0.45	0.010	0.012	0.55	0.10

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

(PWHT: 620°C FOR 1 HR)

UTS	YS	Elongation
(MPa)	(MPa)	(L=4d) %
560	450	25.0

**SHIELDING GAS :** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

**APPROVAL:** Adani Infra, BHEL, CIB-MP

### PACKING:

STANDARD SIZE	Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.
QUANTITY	5 kg wire put in an air-tight polythene bag and finally packed in a plastic container. Identification AWS code is punched on each wire.



## F Cr-Mo 1

**CODIFICATION:** AWS : SFA 5.28 ER80S-B2

### CHARACTERISTICS AND APPLICATIONS:

F Cr-Mo 1 is a copper-coated solid wire for GTAW, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality welds. It is suitable for welding 1.25Cr - 0.5Mo steel. The weld metal possesses good high temperature properties. It deposits notch free weld deposit with excellent mechanical properties. Especially suitable for welding of pipes & tubes of matching composition in Power plants, Refineries, Petrochemicals, Fertilizer plants, etc. Suitable for welding of ASTM steels: Grade F2, F11, F12 class 1 & 2 of SA-182, Grade T11 of SA-199, Grade T2, T11 & T12 of SA-213, Grade WC6 of SA-217, Grade P2, P11 & P12 of SA-335, Grade FP2, FP11 & FP12 of SA-369, Grade 2, 11 & 12 of SA-387, Grade CP2, CP11 & CP12 of SA-426, etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Cr	Mo	Cu
%	0.08	0.50	0.55	0.010	0.012	1.30	0.55	0.10

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

(PWHT: 620°C FOR 1 HR)

UTS	YS	Elongation
(MPa)	(MPa)	(L=4d) %
620	550	24

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

**APPROVAL:** Adani Infra, BHEL, BV, CIB-MP

### PACKING:

STANDARD SIZE	Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.
QUANTITY	5 kg wire put in an air-tight polythene bag and finally packed in a plastic container.
	Identification AWS code is punched on each wire.

## F 70S-2 (NACE)

**CODIFICATION :**                      **AWS :**      SFA 5.18 ER70S-2

### CHARACTERISTICS AND APPLICATIONS:

F 70S-2(NACE) is triple deoxidized copper coated mild steel wire for GTAW, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality welds. It is suitable for root run of mild steel pipes. Ideal for welding A36, A285 Gr. C, A333 Gr. 6, A515-55, A516-70, etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	P	S	Ti	Zr	V	Al	Cu	Ni	Cr	Mo
%	0.05	1.25	0.55	0.010	0.008	0.10	0.09	0.01	0.09	0.06	0.10	0.10	0.10

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL

UTS	YS	Elongation	CVN Impact strength at
(MPa)	(MPa)	(L = 4d) %	minus 46°C (Joules)
530	440	28.0	45

**CORROSION TEST :** Passes corrosion test as per NACE standard TM-01-77-96 (SSCC) and TM-02-84-96 (HIC)

**HARDNESS OF WELD METAL:** 200 HV5 Max.

**SHIELDING GAS:** Argon

**CURRENT CONDITIONS:** DCEN

**WELDING POSITION:** H, F, VU, OH

### PACKING:

<b>STANDARD SIZE</b>	Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.
<b>QUANTITY</b>	5 kg wire put in an air-tight polythene bag and finally packed in a plastic container. Identification AWS code is punched on each wire.

## F 70S-6

**CODIFICATION :**                      **AWS :**      SFA 5.18 ER70S-6

### CHARACTERISTICS AND APPLICATIONS:

F 70S-6 is a copper coated mild steel wire for GTAW. Suitable for welding of mild steel, low carbon steel and other structural steels of tensile strength up to 540 MPa. The wire burns with smooth arc. It is designed for welding of low and medium carbon steels like; SA-36, A/B/C/D grades of SA-283, A/B/C grades of SA-285, A/B grades of SA-414, etc.

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Cu
%	0.09	1.60	0.90	0.018	0.018	0.15

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

UTS	YS	Elongation	CVN Impact Strength
(MPa)	(MPa)	(L = 4d) %	at minus 30°C (Joules)
510	440	26.0	45

**SHIELDING GAS:** Argon

**CURRENT CONDITION:** DCEN

**WELDING POSITION:** H, F, VU, OH

**APPROVAL :** BV

### PACKING :

STANDARD SIZE	Diameter 1.6 mm, 2.0 mm, 2.4 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.
QUANTITY	5 kg wire put in an air-tight polythene bag and finally packed in a plastic container. Identification AWS code is punched on each wire.



## F 70S-2

**CODIFICATION :**                      **AWS :**      SFA 5.18 ER70S-2

### CHARACTERISTICS AND APPLICATIONS:

F 70S-2 is triple deoxidized copper-coated mild steel wire for GTAW, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality welds. It is suitable for root run of mild steel pipes. Ideal for welding A36, A285 grade C, A515-55, A516-70, etc

### TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	P	S	Ti	Zr	Al	Cu	Ni	Cr	Mo
%	0.05	1.25	0.55	0.02	0.02	0.10	0.09	0.09	0.06	0.10	0.10	0.10

### TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL

UTS	YS	Elongation	CVN Impact strength
(MPa)	(MPa)	(L = 4d) %	at minus 30°C (Joules)
530	440	28.0	60

**SHIELDING GAS:** Argon

**CURRENT CONDITIONS:** DCEN

**WELDING POSITION:** H, F, VU, OH

**APPROVAL:** Adani Infra, CIB-MP, L&T Power, NPCIL, PDIL, Reliance  
(Engineering)

### PACKING:

STANDARD SIZE	Diameter 1.6 mm, 2.0 mm, 2.4 mm, 2.5 mm, 3.15 mm & 3.2 mm in cut lengths of 500 mm / 1000 mm each.
QUANTITY	5 kg wire put in an air-tight polythene bag and finally packed in a plastic container. Identification-AWS code is punched on each wire.

**CODIFICATION: AWS/SFA 5.14: ERNi-1**

## CHARACTERISTICS AND APPLICATIONS:

FW 1280 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. Weld metal enhanced resistance to corrosion in caustic soda service and marine atmosphere. It is suitable for welding wrought and cast forms of pure nickel alloys like ASTM B160, B161, B162 and B163 having UNS number N02200 or N02201 to itself.

## TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	P	S	Ni	Ti
Percent	0.025	0.44	0.20	0.007	0.010	96.2	2.6

## TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

UTS (MPa)	Elongation (L=4d) %
430	25.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

## PACKING:

<b>STANDARD SIZE</b>	Diameter 1.6 mm, 2.0 mm, 2.5 mm & 3.2 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

November 14, 2015 Rev. 01

## **CODIFICATION: AWS/SFA 5.14: ERNiCrMo-4**

## **CHARACTERISTICS AND APPLICATIONS:**

FW 1400 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. Weld metal enhanced resistance to heat and strength up to 1000°C. Weld metal has good thermal shock resistance, hardness retention even at elevated temperatures, work hardening characteristics and corrosion resistance. It is suitable for welding low carbon Ni – Cr – Mo alloys, clad side of low carbon Ni – Cr – Mo alloys and alloys of similar composition. Suitable for surfacing for increased resistance to abrasion, oxidation & corrosion. Ideal for valves, valve seats, impellers, guide points, bushing, bearing, journals, hot working tools like hot shear blades, forging dies, trimming dies, piercing punches etc.

## **TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:**

Element	C	Mn	Si	P	S	Cr	Ni	Mo	W	Fe	Co
Percent	0.018	0.60	0.06	0.025	0.022	15.0	Rem.	15.5	3.5	5.0	2.0

## **TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:**

UTS (MPa)	Elongation (L=4d) %
720	28.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

## **PACKING:**

<b>STANDARD SIZE</b>	Diameter 1.6 mm, 2.0 mm, 2.5 mm & 3.2 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

November 14, 2015 Rev. 02

## **CODIFICATION: AWS/SFA 5.14: ERNiCrMo-10**

## **CHARACTERISTICS AND APPLICATIONS:**

FW 1423 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. Weld metal enhanced resistance to pitting, crevice corrosion, and stress corrosion cracking. It has outstanding corrosion resistance to both reducing and oxidizing media. It is suitable for welding Nickel – Chromium – Molybdenum alloy to itself, to steel, to other nickel base alloys, and for cladding steel. Typical applications include the welding of Nickel – Chromium – Molybdenum alloys such as, ASTM B574, B575, B619, B622 & B628 having UNS number N 06022.

## **TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:**

Element	C	Mn	Fe	P	S	Si	Ni	Co	Cr	Mo	V	W
Percent	0.010	0.40	4.5	0.015	0.008	0.07	Rem.	2.0	21.0	13.0	0.20	3.0

## **TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:**

UTS (MPa)	Elongation (L=4d) %
740	30.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

## **PACKING:**



<b>STANDARD SIZE</b>	Diameter 1.6 mm, 2.0 mm, 2.5 mm & 3.2 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

November 14, 2015 Rev. 01

	<p align="center"><b>FW NiCr-3</b></p> <hr/> <p align="center"><b>Solid Wire for GTA / TIG Welding</b></p>	
---	--	---

**CLASSIFICATION:** **AWS SFA 5.14**  
**ERNiCr-3**

**WELDING POSITION**  
**H, F, VU, OH**

**CHARACTERISTICS:**

FW NiCr-3 is a solid wire available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality welds.

**APPLICATIONS:**

This wire is used for welding a range of Inconel 600, 601, 690, Incoloy 800, 800H, 800HT, 9% Nickel steel, ASTM B 163, B 166, B 167, B168 etc. Used for dissimilar applications with carbon steel to stainless steels, low alloy steel to stainless steel and also for 200 and 400 type alloys.

**TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:**

Element	C	Mn	Fe	S	P	Si	Ni	Cu	Co	Ti	Cr	Nb+Ta
Percent	0.08	3.00	2.0	0.008	0.015	0.20	Rem	0.20	0.004	0.50	20.0	2.5

**TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:**

UTS (MPa)	% EL (L=4d)
<b>600</b>	<b>32.0</b>

<b>SHIELDING GAS:</b>	Argon
-----------------------	-------

<b>CURRENT CONDITIONS:</b>	DCEN
----------------------------	------

<b>PACKING:</b>	<b>STANDARD SIZE</b>	Diameter 1.6 mm 2.0 mm, 2.50 mm & 3.20 mm in cut lengths of 1000 mm each.
	<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – Brand name is punched on each wire.

An ISO 9001: 2008 certified company	
<b>D&amp;H Sécheron Electrodes Private Limited</b>	
44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260	
e-mail: tsd@dnhsecheron.net Website: www.dnhsecheron.com	
October 27, 2014 (Rev.: 02)	



**CODIFICATION: AWS/SFA 5.14: ERNiCrMo-3**

## CHARACTERISTICS AND APPLICATIONS:

FW 1223 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality welds. It is ideal for welding Ni-Cr-Mo alloys to themselves and to steel, and for surfacing steel. The wires are use in applications where the temperature ranges from cryogenic to 540°C. It is also suitable for welding Ni base alloys to steel. Ideal for valves, valve seats, impellers, guide points, bushing, bearings, journals, hot working tools like hot shear blades, forging dies, trimming dies, piercing punches etc.

## TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	P	S	Cr	Ni	Mo	Fe	Al	Cu	Ti	Nb+Ta
Percent	0.06	0.40	0.30	0.015	0.008	21.0	Rem.	9.0	4.0	0.20	0.25	0.20	3.5

## TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

UTS (MPa)	Elongation (L=4d) %
770	34.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

## PACKING:

<b>STANDARD SIZE</b>	Diameter 1.6 mm, 2.0 mm, 2.5 mm & 3.2 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

November 14, 2015 Rev. 01

**CODIFICATION: AWS / SFA 5.14: ERNiCrCoMo-1**

## **CHARACTERISTICS AND APPLICATIONS:**

FW 1225 is a solid wire for GTAW available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality welds. It is used for welding Nickel-Chromium-Cobalt-Molybdenum alloys to themselves and to steel and for surfacing steel with Ni-Cr-Co-Mo weld metal. It is also used for applications where optimum strength and oxidation resistance is required above 820°C up to 1150°C especially when welding on base metal of Nickel-Iron-Chromium alloys. Specially recommended for welding furnace heating elements, reformer tubes etc.

## **TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:**

Element	C	Mn	Fe	P	S	Si	Cr	Ni	Mo	Co	Ti	Cu	Al
Percent	0.08	0.80	1.5	0.015	0.008	0.30	22.0	53.0	9.0	12.0	0.20	0.20	1.10

## **TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:**

UTS (MPa)	Elongation (L=4d) %
620	25.0

**SHIELDING GAS : Argon**

**CURRENT CONDITIONS : DCEN**

**WELDING POSITION : H, F, VU, OH**

## **PACKING:**

<b>STANDARD SIZE</b>	Diameter 1.6 mm 2.0 mm, 2.50 mm & 3.20 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – Brand name is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

April 28, 2015 Rev. 01

**CODIFICATION: AWS/SFA 5.14: ERNiCu-7**

## CHARACTERISTICS AND APPLICATIONS:

FW 1250 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality welds. The weld metal possesses good resistance to corrosion by seawater, chlorinated solvents, sulfuric acid and alkalies. It is ideally suited for welding of monel-to-monel, Ni-Cu alloys to themselves, Ni-Cu alloy to steels, for welding clad side of Ni-Cu clad steel and for surfacing on steel parts. It is ideal for marine, chemical, food, dairy and oil refining industries.

## TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	P	S	Ni	Cu	Ti
Percent	0.025	0.87	0.16	0.010	0.006	63.8	31.0	2.50

## TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

UTS (MPa)	Elongation (L=4d) %
520	30.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

## PACKING:

<b>STANDARD SIZE</b>	Diameter 1.6 mm, 2.0 mm, 2.5 mm & 3.2 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

November 14, 2015 Rev. 01



**CODIFICATION: AWS/SFA 5.9: ER309L**

**CHARACTERISTICS AND APPLICATIONS:**

FW 309L is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. The weld metal has excellent mechanical properties and possesses good oxidation and scaling resistance at elevated temperatures. It is ideally suited for welding stainless steels, wrought and cast materials of similar composition, welding of 18/8 type stainless steels to carbon steels for buffer layers, for welding clad side of 18/8 clad stainless steels, etc.

**TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:**

Element	C	Mn	Si	S	P	Cr	Ni
Percent	0.02	1.75	0.35	0.010	0.020	23.3	13.8

**TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:**

UTS (MPa)	Elongation (L=4d) %
550	32.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

**PACKING:**

<b>STANDARD SIZE</b>	Diameter 1.6 mm 2.0 mm, 2.50 mm & 3.20 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

November 4, 2015 Rev. 01

**CODIFICATION: AWS/SFA 5.9: ER310**

## CHARACTERISTICS AND APPLICATIONS:

FW 310 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality welds. The weld metal has excellent resistance to oxidation and scaling up to 1200°C. It is ideally suited for the welding of similar and dissimilar compositions, including hardenable steels, clad steels, Carbon - Molybdenum and Chromium - Molybdenum steels where pre-heat, and post weld heat treatments are impracticable.

## TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Cr	Ni
Percent	0.10	2.0	0.50	0.015	0.018	26.0	21.0

## TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

UTS (MPa)	Elongation (L=4d) %
600	32.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

## PACKING:

<b>STANDARD SIZE</b>	Diameter 1.6 mm 2.0 mm, 2.50 mm & 3.20 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

November 5, 2015 Rev. 01

**CODIFICATION: AWS/SFA 5.9: ER316**

## CHARACTERISTICS AND APPLICATIONS:

FW 316 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. The weld metal has excellent resistance to intergranular corrosion even at elevated temperatures. It is ideal for welding stainless steel of similar composition in wrought or cast form and for overlay application to resist heat and corrosion. It is suitable for number of industries like rayon, dye, paper, chemical, fertilizer, petrochemicals, etc.

## TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Cr	Ni	Mo
Percent	0.04	1.50	0.50	0.010	0.020	19.0	12.5	2.5

## TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

UTS (MPa)	Elongation (L=4d) %
540	32.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

## PACKING:

<b>STANDARD SIZE</b>	Diameter 1.6 mm 2.0 mm, 2.50 mm & 3.20 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com





**CODIFICATION: AWS/SFA 5.9: ER316L**

**CHARACTERISTICS AND APPLICATIONS:**

FW 316L is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. The weld metal has excellent resistance to intergranular corrosion even at elevated temperatures. It is ideal for welding stainless steel of similar composition in wrought or cast form and for overlay application to resist heat and corrosion. It is suitable for number of industries like rayon, dye, paper, chemical, fertilizer, petrochemicals, etc.

**TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:**

Element	C	Mn	Si	S	P	Cr	Ni	Mo
Percent	0.02	1.50	0.50	0.010	0.020	19.0	12.5	2.5

**TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:**

UTS (MPa)	Elongation (L=4d) %
520	32.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

**PACKING:**

<b>STANDARD SIZE</b>	Diameter 1.6 mm 2.0 mm, 2.50 mm & 3.20 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com



**CODIFICATION: AWS/SFA 5.9: ER317 L**

**CHARACTERISTICS AND APPLICATIONS:**

FW 317L is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality welds. It is ideally suited for welding of stainless steels of similar composition and their equivalents. Low carbon weld metal increases the resistance to intergranular corrosion. It is also excellent resistance against Sulfuric, Sulfurous and phosphoric acids.

**TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:**

Element	C	Mn	Si	S	P	Cr	Ni	Mo
Percent	0.025	1.20	0.40	0.015	0.018	19.5	14.0	3.5

**TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:**

UTS (MPa)	Elongation (L=4d) %
540	35

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

**PACKING:**

<b>STANDARD SIZE</b>	Diameter 1.6 mm 2.0 mm, 2.50 mm & 3.20 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

October 30, 2015 Rev. 01



**CODIFICATION: AWS/SFA 5.9: ER320**

## CHARACTERISTICS AND APPLICATIONS:

FW 320 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. The weld metal provides resistance to intergranular corrosion. Ideally suited to weld base metal of similar composition for applications where resistance to severe corrosion involving a wide range of chemicals, including sulfuric and sulfurous acids and their salts, is required. It can be used to weld both castings and wrought alloys of similar composition.

## TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	Nb+Ta
Percent	0.02	1.75	0.35	0.010	0.012	20.0	34.0	2.5	3.5	0.50

## TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

UTS (MPa)	Elongation (L=4d) %
580	36.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

## PACKING:

<b>STANDARD SIZE</b>	Diameter 1.6 mm 2.0 mm, 2.50 mm & 3.20 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

November 6, 2015 Rev. 01

**CODIFICATION: AWS/SFA 5.9: ER347**

## CHARACTERISTICS AND APPLICATIONS:

FW 347 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. The Nb reduces the possibility of intergranular chromium carbide precipitation and thus susceptibility to intergranular corrosion and high temperature strength. It is suitable for welding Cr – Ni stabilized stainless steels of type AISI 347, 321, etc.

## TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:

Element	C	Mn	Si	S	P	Cr	Ni	Nb
Percent	0.04	1.40	0.37	0.010	0.015	19.15	9.5	0.55

## TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:

UTS (MPa)	Elongation (L=4d) %
580	33.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

## PACKING:

<b>STANDARD SIZE</b>	Diameter 1.6 mm, 2.0 mm, 2.50 mm & 3.20 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

November 7, 2015 Rev. 01

## **CODIFICATION: AWS/SFA 5.9: ER385**

## **CHARACTERISTICS AND APPLICATIONS:**

FW 385 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. Wire contains low carbon 20Cr - 25Ni - 5Mo - 2Cu which exhibits excellent resistance to corrosion in non oxidizing media like sulfuric acid, phosphoric acid, acetic acid, formic acid, fatty acids, oxalic acid etc. It is ideally suited for welding materials for application where phosphoric, sulfuric acids, and other non-oxidizing solutions are encountered. The addition of Mo and Cu helps in resisting corrosive attack of these solutions. It is particularly suited for welding Carpenter 20, HV9, HV9A, Uranus B6, UHB 904L, Sandvik 2RK65, and similar materials which are used for these service conditions.

## **TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:**

Element	C	Mn	Si	S	P	Cr	Ni	Mo	Cu
Percent	0.022	1.20	0.30	0.015	0.018	20.0	25.0	4.80	1.60

## **TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:**

UTS (MPa)	Elongation (L=4d) %
540	32.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

## **PACKING:**

<b>STANDARD SIZE</b>	Diameter 1.6 mm, 2.0 mm, 2.50 mm & 3.20 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

November 7, 2015 Rev. 02



**CODIFICATION: AWS/SFA 5.9: ER410**

**CHARACTERISTICS AND APPLICATIONS:**

FW 410 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. Weld metal possesses excellent resistance to corrosion, pitting, abrasion, and impact. It is suitable for joining of similar alloys and for surfacing and overlay applications on unalloyed steels. Ideally suited for surfacing of valves and other components of turbine, steam valves made of 13Cr steel, etc.

**TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:**

Element	C	Mn	Si	S	P	Cr
Percent	0.06	0.50	0.40	0.025	0.025	12.0

**TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:  
(PWHT: 740°C for one Hour)**

UTS (MPa)	Elongation (L=4d) %
550	23.0

**SHIELDING GAS : Argon**

**CURRENT CONDITIONS : DCEN**

**WELDING POSITION : H, F, VU, OH**

**PACKING:**

<b>STANDARD SIZE</b>	Diameter 1.6 mm, 2.0 mm, 2.5 mm & 3.2 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

November 14, 2015 Rev. 01



**CODIFICATION: AWS/SFA 5.9: ER410NiMo**

**CHARACTERISTICS AND APPLICATIONS:**

FW 410NiMo is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. Weld metal possesses excellent resistance to corrosion, pitting, abrasion, and impact. Welding for surfacing of ASTM CA 6 NM castings and similar composition subjected to wear by corrosion, erosion, abrasion combined with impact. Ideally suitable for welding of guide vanes and runners, hard facing of valve seats, turbine blades in hydro power plants, pulp and paper machinery, rebuilding of gas, steam turbines, etc.

**TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:**

Element	C	Mn	Si	S	P	Cr	Ni	Mo
Percent	0.05	0.50	0.40	0.025	0.025	11.5	4.5	0.50

**TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:  
(PWHT: 600°C for one Hour, Air Cool)**

UTS (MPa)	Elongation (L=4d) %	Hardness (VPN)
800	17.0	325-360

**SHIELDING GAS : Argon**

**CURRENT CONDITIONS : DCEN**

**WELDING POSITION : H, F, VU, OH**

**PACKING:**

<b>STANDARD SIZE</b>	Diameter 1.6 mm, 2.0 mm, 2.5 mm & 3.2 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com



# FW 430



**CODIFICATION: AWS/SFA 5.9  
ER430**

## CHARACTERISTICS AND APPLICATIONS:

FW 430 is a solid wire for TIG process available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. Weld metal possesses excellent resistance to corrosion, abrasion, and impact. It is designed for joining of similar alloys and for surfacing and overlay application on unalloyed steels. Ideally suited for surfacing of valves impellers, turbine, blades etc.

## CHEMICAL COMPOSITION OF SOLID WIRE (%):

Element	C	Mn	Si	S	P	Cr
Range	0.10 Max	0.60 Max	0.50 Max	0.03 Max	0.03 Max	15.5-17.0
Typical	0.06	0.50	0.40	0.015	0.018	16.5

## MECHANICAL PROPERTIES OF ALL WELD METAL: (PWHT: 780°C for 2 Hrs.)

Property	UTS (MPa)	% Elongation (L=4d)
Range	450 Min	20 Min
Typical	490	24

**SHIELDING GAS : Argon**

**WELDING POSITIONS :**

**CURRENT CONDITIONS : DCEN**

## PACKING:

Standard Size	Diameter 1.6 mm, 2.0 mm, 2.5 mm & 3.15 mm in cut lengths of 1000 mm each.
Quantity	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on each wire.

**An ISO 9001: 2015 Certified Company**

**D&H Sécheron Electrodes Private Limited**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731-2412331-2, 4229222 Fax: 0731-4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

May 23, 2018 Rev. 00



## **CODIFICATION: AWS/SFA 5.9: ER2209**

## **CHARACTERISTICS AND APPLICATIONS:**

FW 2209 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. Deposits have duplex microstructures consisting of an austenite – ferrite matrix, which is characterized by high tensile strength, resistance to stress corrosion cracking, and improved resistance to pitting. It is used primarily to weld duplex stainless steels, which contain approximately 22 percent Cr such as UNS S31803 and S32205.

## **TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:**

Element	C	Mn	Si	S	P	Cr	Ni	Mo	N
Percent	0.020	1.30	0.30	0.020	0.020	22.5	8.5	3.0	0.12

## **TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:**

UTS (MPa)	Elongation (L=4d) %
720	25.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

## **PACKING:**

<b>STANDARD SIZE</b>	Diameter 1.6 mm, 2.0 mm, 2.5 mm & 3.2 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

November 14, 2015 Rev. 01

**CODIFICATION: AWS/SFA 5.9: ER2553**

## **CHARACTERISTICS AND APPLICATIONS:**

FW 2553 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. The duplex stainless steel weld metal is characterized by high tensile strength, resistance to stress corrosion cracking and improved resistance to pitting. The major application area includes, oil & gas industry, offshore platforms, petrochemical plants, mechanical & structural components demanding high strength together with high corrosion resistance.

## **TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:**

Element	C	Mn	Si	S	P	Cr	Ni	Mo	Cu	N
Percent	0.025	1.10	0.45	0.010	0.012	25.0	5.5	3.5	2.0	0.15

## **TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:**

UTS (MPa)	Elongation (L=4d) %
780	17.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

## **PACKING:**

<b>STANDARD SIZE</b>	Diameter 1.6 mm, 2.0 mm, 2.5 mm & 3.2 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

November 14, 2015 Rev. 01





# FW 2594



**CODIFICATION:** AWS/SFA 5.9  
ER2594

## CHARACTERISTICS AND APPLICATIONS:

FW 2594 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. The weld metal exhibits high strength, high impact energy, and resistance to stress corrosion cracking, pitting, and crevice corrosion. The weld metal possesses excellent corrosion resistance in marine & paper environments. Examples of application areas are: Oil and gas industry, Off shore plat forms, Petrochemical plants, Mechanical and structural components. It is suitable for welding

- ASTM A890/A995 Gr. 5A, CE3Mn, UNS J93404
- Super Duplex 2507, UNS S32750, EN 1.4410, NF Z3 CND 25-06AZ, SS2328
- ASTM A890/A995 Gr. 6A UNS 32760, J93380, CD3MWCuN

## CHEMICAL COMPOSITION OF SOLID WIRE (%):

Element	C	Mn	Si	P	S	Cr	Ni	Mo	Cu	N	W
Range	0.03 Max	2.5 Max	1.00 Max	0.030 Max	0.020 Max	24.0- 27.0	8.0- 10.5	2.5- 4.5	1.50 Max	0.20- 0.30	1.00 Max
Typical	0.025	1.50	0.50	0.015	0.010	25.0	9.0	3.5	0.30	0.22	0.10

## MECHANICAL PROPERTIES OF ALL WELD METAL:

Property	UTS (MPa)	Elongation (L=4d) %	CVN Impact (Joules) at 20°C
Range	760 Min	15.0 Min	45 Min
Typical	790	23.0	60

**PITTING RESISTANCE NUMBER:** Meet the requirement of PREN  $\geq 40$

**CORROSION PROPERTY:** Weld metal meets ASTM A262 Practice C and ASTM G-48A

**FERRITE (FN)** : 30-60

**SHIELDING GAS** : Argon

**WELDING POSITIONS** :

**CURRENT CONDITIONS** : DCEN

## PACKING:

Standard Size	Diameter 1.6 mm, 2.0 mm, 2.5 mm & 3.2 mm in cut lengths of 1000 mm each.
Quantity	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

An ISO 9001: 2008 certified company

D & H Sécheron Electrodes Pvt. Ltd.

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

February 2, 2017 Rev. 02



**CODIFICATION: AWS/SFA 5.9: ER308**

**CHARACTERISTICS AND APPLICATIONS:**

FW 308 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality welds. It is ideally suited for welding of stainless steels of similar composition like 304 and equivalents, for overlays, surfacing, and repairing castings of similar materials.

**TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:**

Element	C	Mn	Si	S	P	Cr	Ni
Percent	0.04	1.20	0.30	0.015	0.018	20.0	10.0

**TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:**

UTS (MPa)	Elongation (L=4d) %
570	40.0

**SHIELDING GAS : Argon**

**CURRENT CONDITIONS : DCEN**

**WELDING POSITION : H, F, VU, OH**

**PACKING:**

<b>STANDARD SIZE</b>	Diameter 1.6 mm 2.0 mm, 2.50 mm & 3.20 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

November 2, 2015 Rev. 01



## FW 308L



**CODIFICATION: AWS/SFA 5.9  
ER308L**

### CHARACTERISTICS AND APPLICATIONS:

FW 308L is a solid wire for TIG process, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality welds. Wire contains low carbon 20Cr - 10Ni. The weld metal exhibits excellent resistance to Intergranular Corrosion. It is ideally suited for welding of stainless steels of similar composition like 304L and equivalents, for overlays, surfacing, and repairing castings of similar materials.

### CHEMICAL COMPOSITION OF SOLID WIRE (%):

Element	C	Mn	Si	S	P	Cr	Ni
Range	0.03 Max	1.0- 2.5	0.30- 0.65	0.03 Max	0.03 Max	19.5- 22.0	9.0- 11.0
Typical	0.022	1.20	0.40	0.015	0.018	20.0	10.0

### MECHANICAL PROPERTIES OF ALL WELD METAL:

Property	UTS (MPa)	Elongation (L=4d) %
Range	520 Min	35 Min
Typical	570	40.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITIONS** :

### PACKING:

<b>Standard Size</b>	Diameter 1.6 mm, 2.0 mm, 2.5 mm & 3.2 mm in cut lengths of 1000 mm each.
<b>Quantity</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

An ISO 9001: 2008 certified company

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

August 25, 2017 Rev. 02

## **CODIFICATION: AWS/SFA 5.9: ER309**

## **CHARACTERISTICS AND APPLICATIONS:**

FW 309 is a solid wire for TIG welding, available in bright finish, gives smooth flow, stable arc and spatter free under optimum welding conditions. It gives radiographic quality weld deposit. The weld metal has excellent mechanical properties and possesses good oxidation and scaling resistance at elevated temperatures. It is ideally suited for welding stainless steels, wrought and cast materials of similar composition, welding of 18/8 type stainless steels to carbon steels for buffer layers, for welding clad side of 18/8 clad stainless steels, etc.

## **TYPICAL CHEMICAL COMPOSITION OF SOLID WIRE:**

Element	C	Mn	Si	S	P	Cr	Ni
Percent	0.05	1.75	0.35	0.010	0.020	23.3	13.8

## **TYPICAL MECHANICAL PROPERTIES OF ALL WELD METAL:**

UTS (MPa)	Elongation (L=4d) %
570	32.0

**SHIELDING GAS** : Argon

**CURRENT CONDITIONS** : DCEN

**WELDING POSITION** : H, F, VU, OH

## **PACKING:**

<b>STANDARD SIZE</b>	Diameter 1.6 mm 2.0 mm, 2.50 mm & 3.20 mm in cut lengths of 1000 mm each.
<b>QUANTITY</b>	5 kgs wire put in an air-tight polythene bag and finally packed in a plastic container. Identification – AWS code is punched on both the sides of wire.

**An ISO 9001: 2008 certified company**

**D & H Sécheron Electrodes Pvt. Ltd.**

44-46, Industrial Estate, Kila Maidan, Indore-452 006, India, Ph: 0731 2412331-2, 4229222 Fax: 0731 4229260  
e-mail: info@dnhsecheron.net Website: www.dnhsecheron.com

October 31, 2015 Rev. 01