

E6010

Specifications AWS A5.1, ASME SFA 5.1

Classification E6010

Type of power DCEP

Description:

E6010 is a quick-starting, cellulosic mild steel electrode that provides you with outstanding arc stability, penetration and wash-in. It is ideal for welding in all positions and produces an X-ray quality weld with light slag that's easy to remove. E6010 can be used to weld the following API 5L steels: Grade A, B, X-42, X-46, X-52, X-56 and for the root pass on material up to X-80.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.06			0.40	0.20	
S	Cu	Mo			

Typical Mechanical Properties	
Tensile Strength	76,000 psi
Yield Strength	61,000 psi
Elongation in 2"	26.0 %

E6010 Plus

Specifications AWS A5.1, ASME SFA 5.1

Classification E6010

Type of power DCEP

Description:

E6010 Plus is a quick-starting, cellulosic mild steel electrode that provides you with outstanding arc stability, penetration and wash-in. It is ideal for welding in all positions and produces an X-ray quality weld with light slag that's easy to remove. E6010 Plus can be used to weld the following API 5L steels: Grade A, B, X-42, X-46, X-52, X-56 and for the root pass on material up to X-80. It features enhanced weldability and increased physical properties.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.15			0.45	0.15	
S	Cu	Mo			

Typical Mechanical Properties	
Tensile Strength	72,000 psi
Yield Strength	60,000 psi
Elongation in 2"	25.0 %

E6011

Specifications AWS A5.1, ASME SFA 5.1

Classification E6011

Type of power AC or DCEP

Description:

Stable arc characteristics and good penetration are what you can expect to get from E6011 electrode. Designed for use with AC power sources, E6011 has high operator appeal and produces a fine spray transfer that is ideal for all welding positions. Excellent choice for welding on steels that cannot be completely cleaned or where the steel is rusty or painted.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.14			0.47	0.18	0.009
S	Cu	Mo			
0.009					

Typical Mechanical Properties	
Tensile Strength	77,700 psi
Yield Strength	63,200 psi
Elongation in 2"	25.0 %

Data contained in this catalog are typical of the products described, but are not suitable for specifications.

E6013Specifications AWS A5.1, ASME SFA 5.1Classification E6013Type of power AC, DCEN or DCEP**Description:**

E6013 is an all-purpose electrode that can be used with either AC or DC operation. Originally developed for light gage metal, it offers sufficient penetration for welding on heavier assemblies. Ideal for general purpose fabrication, machine parts, metal buildings and structures, and shaft build-up.

Typical Chemistry Analysis

C	Cr	Ni	Mn	Si	P
0.10			0.28	0.27	0.012
S	Cu	Mo			
0.016					

Typical Mechanical Properties

Tensile Strength	72,600 psi
Yield Strength	61,300 psi
Elongation in 2"	26.5 %

E6022Specifications AWS A5.1Classification E6022Type of power AC, DCEN or DCEP**Description:**

E6022 is designed for welding roof decking to support beams and other similar applications where burn-through spot welds with full penetration are required. E6022 is also designed to weld through galvanized or painted roof decking and can be used on plated and dirty decking as well. It is also excellent for rapid downhill welding when joining light gauge materials.

Typical Chemistry Analysis

C	Cr	Ni	Mn	Si	P
0.18			0.25	0.15	0.015
S	Cu	Mo			
0.017					

Typical Mechanical Properties

Tensile Strength	60,000 psi
Yield Strength	not req'd psi
Elongation in 2"	not req'd %

E7010-A1Specifications AWS A5.5Classification E7010-A1Type of power DCEP**Description:**

E7010-A1 is a high cellulose coated electrode that produces weld deposits containing 0.5% Mo, allowing its use on high tensile, low alloy steels. It can be used in any position. The addition of Mo allows for its use on high tensile, low alloy steels. AC or DC reverse polarity. E7010-A1 electrodes are used on chrome-moly piping or casting where high tensile strength and creep resistance at high temperatures and high pressures are desired. Common applications include shaft build-up and repair, gear teeth, boilers, oil well casting, and forging dies.

Typical Chemistry Analysis

C	Cr	Ni	Mn	Si	P
0.09			0.35		0.01
S	Cu	Mo			
1.015		0.52			

Typical Mechanical Properties

Tensile Strength	88,000 psi
Yield Strength	71,000 psi
Elongation in 2"	30 %
Avg Charpy's @ +40°F	56 ft.lb
Avg Charpy's @ -40°F	21 ft.lb

Data contained in this catalog are typical of the products described, but are not suitable for specifications.

E7014

Specifications AWS A5.1, ASME SFA 5.1

Classification E7014

Type of power AC, DCEN or DCEP

Description:

E7014 is a versatile, all-position electrode that you can use with either AC or DC (electrode negative or electrode positive) power. It has a rutile base with an iron powder addition that serves to increase welder-appeal with its outstanding deposition rate and speed of travel. E7014 also produces a weld bead that is excellent in both strength and appearance with slag coverage that is easy to remove.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.06			0.54	0.35	0.026
S	Cu	Mo			
0.013					

Typical Mechanical Properties	
Tensile Strength	79,000 psi
Yield Strength	68,100 psi
Elongation in 2"	27.5 %

E7016

Specifications AWS A5.1

Classification E7016

Type of power AC or DCEP

Description:

E7016 is a basic coated electrode for making vertical-down fillet joints with a flat appearance at high speed. The slag is of the self-lifting type. E7016 is especially good on AC and is used in shipbuilding and structural engineering.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.085			0.54	0.50	
S	Cu	Mo			

Typical Mechanical Properties	
Tensile Strength	70,000 psi
Yield Strength	58,000 psi
Elongation in 2"	22.0 %

E7018-1

Specifications AWS A5.1, ASME SFA 5.1

Classification E7018 H4R, 7018-1 H4R

Type of power AC or DCEP

Description:

E7018-1 is a general purpose electrode that allows you to tackle a wide variety of welding projects with ease. You will get superior weldability from this low hydrogen, mild steel electrode that provides you with excellent start and restart capabilities in addition to a smooth and virtually spatter free arc. Extremely high impact levels are available with E7018-1 even at -50°F giving it the AWS E7018-1 designation.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.02	0.01	0.07	1.06	0.50	0.011
S	Cu	Mo	Mn + Ni + Cr + V		
0.014		0.01	1.28		

Typical Mechanical Properties	
Tensile Strength	78,500 psi
Yield Strength	65,500 psi
Elongation in 2"	28.0 %

Data contained in this catalog are typical of the products described, but are not suitable for specifications.

E7018 AC

Specifications AWS A5.1, ASME SFA 5.1

Classification E7018 H4, E7018

Type of power AC or DCEP

Description:

Highly recommended for applications using small 208/230V, single phase AC welders, E7018AC has good operator appeal, excellent re-striking characteristics and an extremely stable arc. E7018AC is also an excellent choice for skip or tack welds. The slag is self-removing in most applications. E7018AC will work well on all AC power sources and performs exceptionally well on utility-type welders.

Typical Chemistry Analysis

C	Cr	Ni	Mn	Si	P
0.04	0.07	0.08	0.07	0.29	0.08
S	Cu	Mo	V		
0.01		0.01	0.02		

Typical Mechanical Properties

Tensile Strength	81,200 psi
Yield Strength	73,100 psi
Elongation in 2"	29.5 %

E7018-A1

Specifications AWS A5.5, ASME SFA 5.5

Classification E7018-A1 H4R, E7018-A1

Type of power AC or DCEP

Description:

E7018-A1 is an outstanding welding electrode for welding the 1/2% Mo steel and other low alloy steels. The coating is specially formulated to resist moisture pick-up of high heat and humidity. E7018-A1 offers resistance to moisture reabsorption which helps prevent hydrogen cracking and aids in elimination of starting porosity. Definitely a preferred electrode with high operator appeal.

Typical Chemistry Analysis

C	Cr	Ni	Mn	Si	P
0.04			0.72	0.31	0.014
S	Cu	Mo			
0.011		0.54			

Typical Mechanical Properties

Tensile Strength	89,000 psi
Yield Strength	77,000 psi
Elongation in 2"	27.0 %

E7024

Specifications AWS A5.1, ASME SFA 5.1

Classification E7024, E7024-1

Type of power AC or DCEN

Description:**DESCRIPTION:**

E7024 is an excellent high-speed electrode for fillet welds. It is exceptionally fast when used down hand in properly designed weld joints or in horizontal fillet welds where equal leg fillets are desired. When a drag welding technique is used, the electrode operates well on either AC or DC (electrode negative) power. The slag is self-removing in most applications.

Typical Chemistry Analysis

C	Cr	Ni	Mn	Si	P
0.06			0.81	0.43	0.018
S	Cu	Mo			
0.019					

Typical Mechanical Properties

Tensile Strength	82,000 psi
Yield Strength	72,000 psi
Elongation in 2"	25.0 %

Data contained in this catalog are typical of the products described, but are not suitable for specifications.

E8018-B2

Specifications AWS A5.5, ASME SFA 5.5

Classification E8018-B2 4HR, E8018-B2

Type of power AC or DCEP

Description:

E8018-B2 is an outstanding Cr-Mo welding electrode for higher strength steels with tensile strength greater than 80,000 pounds. The coating resist moisture pick-up under conditions of high heat and humidity. The electrode offers resistance to moisture reabsorption which helps prevent hydrogen cracking and aids in elimination of starting porosity. Definitely a preferred electrode with high operator appeal when welding 1/2%, 1% or 1 1/4% Cr & 1/2% Mo bearing materials.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.07	1.30		0.71	0.62	0.010
S	Cu	Mo			
0.009		0.55			

Typical Mechanical Properties*	
Tensile Strength	102,000 psi
Yield Strength	91,000 psi
Elongation in 2"	21.0 %

*Stress Relieved - 1 Hour at 1275°F

E8018-B2L

Specifications AWS A5.5, ASME SFA 5.5

Classification E8018-B2L H4R/E7018 B2L H4R, E8018-B2L

Type of power AC or DCEP

Description:

E8018-B2L is an outstanding Cr-Mo welding electrode with an extra low carbon analysis. This electrode offers good arc characteristics and easy slag removal. E8018-B2L electrode offers resistance to moisture reabsorption which helps prevent hydrogen cracking and aids in elimination of starting porosity. Definitely a preferred electrode with high operator appeal when welding 1/2%, 1% or 1 1/4% Cr & 1/2% Mo bearing materials.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.04	1.36		0.65	0.53	0.011
S	Cu	Mo			
0.012		0.62			

Typical Mechanical Properties*	
Tensile Strength	98,000 psi
Yield Strength	84,000 psi
Elongation in 2"	24.0 %

*Stress Relieved - 1 Hour at 1275°F

E8018-B3L

Specifications AWS A5.5, ASME SFA 5.5

Classification E8018-B3L H4R (E9018-B3L H4R)

Type of power AC or DCEP

Description:

E9018-B3L is an outstanding electrode for welding high strength piping, where cracking is a problem. The E9018-B3L provides excellent notch toughness, 20 ft-lbs minimum at 100°F. The coating is specially formulated to resist moisture pick-up under conditions of high heat and humidity. The electrode offers resistance to moisture reabsorption which helps prevent hydrogen cracking and aids in elimination of starting porosity.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.03	2.21		0.61	0.49	0.02
S	Cu	Mo			
0.01		1.03			

Typical Mechanical Properties	
Tensile Strength	97,000 psi
Yield Strength	82,000 psi
Elongation % in 2"	23.0 %

*Stress Relieved - 1 Hour at 1275°F

Data contained in this catalog are typical of the products described, but are not suitable for specifications.



E8018-B6 (E502-16)

Specifications AWS A5.5

Classification E8018-B6 H4R

Type of power DCEP

Description:

E8018-B6 is an iron powder low hydrogen covered electrode designed for welding of 5% Cr, 1/2% Mo steels and other chromium-molybdenum steels in service conditions too severe for E8018-B3. Its special coating reduces moisture pick-up, minimizing hydrogen cracking and starting porosity. E8018-B6 strikes and re-strikes easily, and provides a stable arc that is easy to control.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.06	4.40	0.042	0.80	0.29	0.01
S	Cu	Mo			
0.01		0.50			

Typical Mechanical Properties*	
Tensile Strength	96,000 psi
Yield Strength	80,000 psi
Elongation in 2"	24.0 %

*Stress Relieved - 1 Hour at 1375°F

E8018-B8 (E505-16)

Specifications AWS A5.5

Classification E8018-B8 H4R

Type of power DCEP

Description:

Designed for joining creep-resistant, high chromium (9% Cr) alloys of similar composition, E8018-B8 is particularly useful for petrochemical applications. Its iron powder low hydrogen coating reduces moisture pick-up and helps minimize hydrogen cracking and starting porosity. The E8018-B8 is the best choice when service conditions are too severe for E9018-B3 or E8018-B6.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.07	9.30	0.12	0.77	0.42	0.02
S	Cu	Mo			
0.01		0.86			

Typical Mechanical Properties*	
Tensile Strength	93,000 psi
Yield Strength	72,000 psi
Elongation in 2"	21.0 %

*Stress Relieved - 1 Hour at 1375°F

E8018-C1

Specifications AWS A5.5, ASME SFA 5.5

Classification E8018-C1 H4

Type of power DCEP

Description:

E8018-C1 is a high quality electrode designed for applications of 2% Ni deposits. The outstanding characteristics of this electrode provides good puddle control with excellent wetting action and tie in. This electrode offers good arc characteristics and easy slag removal. The E8018-C1 will provide notch toughness of 20 ft•lbs at -75°F. The coating is specially formulated to resist moisture pick-up under conditions of high heat and humidity. This electrode offers resistance to moisture reabsorption, helps retard hydrogen cracking and aids in elimination of starting porosity.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.042		2.43	0.95	0.36	0.010
S	Cu	Mo			
0.011					

Typical Mechanical Properties*	
Tensile Strength	91,000 psi
Yield Strength	80,000 psi
Elongation in 2"	26.0 %

*Stress Relieved - 1 Hour at 1125°F

Data contained in this catalog are typical of the products described, but are not suitable for specifications.



E8018-C2

Specifications AWS A5.5, ASME SFA 5.5
Classification E8018-C2 H4
Type of power DCEP

Description:

E8018-C2 is excellent for low temperature applications requiring tensile strengths greater than 80,000 psi and for welding 2% to 4% Ni steels. Featuring a special formulated coating designed to reduce moisture pick-up and help minimize hydrogen cracking and starting porosity, E8018-C2 is also an outstanding choice in conditions of high heat or humidity.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.03		3.18	1.01	0.40	0.01
S	Cu	Mo			
0.02					

Typical Mechanical Properties*	
Tensile Strength	95,000 psi
Yield Strength	82,000 psi
Elongation in 2"	24.0 %

*Stress Relieved - 1 Hour at 1125°F

E8018-C3

Specifications AWS A5.5, ASME SFA 5.5
Classification E8018-C3 H4
Type of power AC or DCEP

Description:

E8018-C3 is an outstanding electrode that is designed for 80,000 tensile strength applications and also 1% Ni applications. It provides good puddle control with excellent wetting action, tie in and good arc characteristics. Notch toughness is 20 ft.-lbs. at -40° F. The coating is specially formulated to resist conditions of high heat and humidity. The electrode offers resistance to moisture reabsorption, and helps prevent hydrogen cracking.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.05	0.07	0.96	1.03	0.26	0.012
S	Cu	Mo	V		
0.009		0.10	0.02		

Typical Mechanical Properties	
Tensile Strength	82,000 psi
Yield Strength	70,000 psi
Elongation in 2"	28.0 %

E9015-B9

Specifications AWS A5.5, ASME SFA5.5
Classification E9015-B9 H4R
Type of power DCEP

Description:

Designed for joining creep-resistant, high chromium (9% Cr-1%Mo-V) alloys of similar composition, the E9015-B9 is particularly useful for power generation and petrochemical applications. The E9015-B9 is the best choice when service conditions are too severe for 9018-B3, 8018-B6, or 8018-B8 with improved creep resistance.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.10	9.60	0.70	0.50	0.25	0.010
S	Cu	Mo	V	Al	N
0.008	0.03	0.90	0.19	0.01	0.04
Nb					
0.07					

Typical Mechanical Properties*	
Tensile Strength	122,000 psi
Yield Strength	104,000 psi
Elongation in 2"	18.2 %

*Stress Relieved - 1 Hour at 1375°F

Data contained in this catalog are typical of the products described, but are not suitable for specifications.



E9018-B3Specifications AWS A5.5, ASME SFA 5.5Classification E9018-B3 H4RType of power AC or DCEP**Description:**

E9018-B3 is an outstanding welding electrode for welding higher strength piping, castings and forgings. The coating is specially formulated to resist moisture pick-up under conditions of high heat and humidity. The electrode offers resistance to moisture reabsorption which helps prevent hydrogen cracking and aids in elimination of starting porosity. Definitely a preferred electrode with high operator appeal.

Typical Chemistry Analysis

C	Cr	Ni	Mn	Si	P
0.08	2.28		0.72	0.42	0.014
S	Cu	Mo			
0.009		1.19			

Typical Mechanical Properties*

Tensile Strength	112,000 psi
Yield Strength	95,000 psi
Elongation % in 2"	21.0 %

*Stress Relieved - 1 Hour at 1275°F

E9018-B3LSpecifications AWS A5.5, ASME SFA 5.5Classification E9018-B3L H4R (E8018-B3L H4R)Type of power AC or DCEP**Description:**

E9018-B3L is an outstanding electrode for welding high strength piping, where cracking is a problem. The E9018-B3L provides excellent notch toughness, 20 ft•lbs minimum at 100°F. The coating is specially formulated to resist moisture pick-up under conditions of high heat and humidity. The electrode offers resistance to moisture reabsorption which helps prevent hydrogen cracking and aids in elimination of starting porosity. Same as E9018-B3 with the exception that this is a low carbon electrode with lower Tensile and Yield strengths.

Typical Chemistry Analysis

C	Cr	Ni	Mn	Si	P
0.03	2.21		0.61	0.49	0.02
S	Cu	Mo			
0.01		1.03			

Typical Mechanical Properties

Tensile Strength	97,000 psi
Yield Strength	82,000 psi
Elongation % in 2"	23.0 %

*Stress Relieved - 1 Hour at 1275°F

E9018-MSpecifications AWS A5.5, ASME SFA 5.5Classification E9018-M H4RType of power AC or DCEP**Description:**

E9018M is an outstanding welding electrode for welding higher strength steels with tensile strength in excess of 90,000 psi. The coating is specially formulated to resist moisture pick-up under conditions of high heat and humidity. The electrode offers resistance to moisture reabsorption which helps prevent hydrogen cracking and aids in elimination of starting porosity. Definitely a preferred electrode with high operator appeal.

Typical Chemistry Analysis

C	Cr	Ni	Mn	Si	P
0.054	0.07	1.64	1.10	0.27	0.012
S	Cu	Mo	V		
0.009		0.35	0.012		

Typical Mechanical Properties

Tensile Strength	100,000 psi
Yield Strength	89,000 psi
Elongation % in 2"	24.0 %

Data contained in this catalog are typical of the products described, but are not suitable for specifications.

E10018-D2

Specifications AWS A5.5, ASME SFA 5.5

Classification E10018-D2 H4R

Type of power AC or DCEP

Description:

Featuring good arc characteristics, crack resistance and ductility, E10018-D2 is outstanding for welding low alloy, high-strength steels and manganese-molybdenum steels requiring tensile strengths of at least 100,000 psi. Its specially formulated coating, designed to reduce moisture pick-up and minimize hydrogen cracking and starting porosity, makes it great for conditions of high heat and humidity. Preferred by foundries where normalizing treatments are involved.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.05			1.85	0.45	0.025
S	Cu	Mo			
0.012		0.35			

Typical Mechanical Properties	
Tensile Strength	112,000 psi
Yield Strength	97,000 psi
Elongation % in 2"	25.0 %

*Stress Relieved - 1 Hour at 1150°F

E 10018-M

Specifications AWS A5.5, ASME SFA 5.5

Classification E10018-M H4R

Type of power DCEP

Description:

E10018-M is designed for welding low alloy, high-strength steels with tensile strengths of at least 100,000 psi. This electrode has high operator appeal due to its good arc characteristics, easy slag removal, and low spatter and smoke. E10018-M is ideal for conditions of high heat and humidity because of its moisture-resistant coating which helps to prevent hydrogen cracking and starting porosity.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.06	0.10	1.55	1.25	0.40	0.015
S	Cu	Mo			
0.01		0.30			

Typical Mechanical Properties	
Tensile Strength	104,444 psi
Yield Strength	95,000 psi
Elongation % in 2"	24.0 %

E11018-M

Specifications AWS A5.5, ASME SFA 5.5

Classification E11018-M H4R

Type of power AC or DCEP

Description:

The E11018-M is an outstanding electrode designed for use in applications which requires weld joints with 100,000 psi minimum tensile strength. E11018-M provides excellent puddle control with good wetting action and tie in. It also has very good arc characteristics and easy slag removal.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.05	0.20	1.85	1.40	0.28	0.014
S	Cu	Mo	V		
0.014		0.33	0.01		

Typical Mechanical Properties	
Tensile Strength	110,000 psi
Yield Strength	101,000 psi
Elongation % in 2"	21.0 %

Data contained in this catalog are typical of the products described, but are not suitable for specifications.

E12018-M

Specifications AWS A5.5, ASME SFA 5.5

Classification E12018-M H4R

Type of power AC or DCEP

Description:

E12018-M is a high quality electrode for high tensile steels where welds of 120,000 psi tensile strengths are required. The coating is specially formulated to resist conditions of high heat and humidity. The electrode offers resistance to moisture reabsorption which helps retard hydrogen cracking and aids in eliminating starting porosity.

Typical Chemistry Analysis					
C	Cr	Ni	Mn	Si	P
0.06	0.66	2.34	1.91	0.32	0.016
S	Cu	Mo	V		
0.011		0.46	0.01		

Typical Mechanical Properties	
Tensile Strength	138,000 psi
Yield Strength	116,000 psi
Elongation % in 2"	20.0 %

Please note that not all of the Mild Steel & Low Alloy Electrodes are listed in this catalog. If you can not find what you are looking for, please contact WeldCor in BC at 1-604-701-6533 or in Alberta at 1-780-468-1777.

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