E70C-6M

Specifications: AWS A5.18, SFA 5.18

Classification: E70C-6M

Description:

E70C-6M is a carbon steel, composite metal cored electrode for gas shielded arc welding. This electrode is intended for single and multiple-pass welding of carbon and certain low alloy steels, where a minimum tensile strength of 70,000 psi is required in the deposited weld metal. Recommended shielding gases are mixtures of ${\rm Argon/CO_2}$, with a minimum of 75% Argon, and ${\rm Argon/O_2}$ with a minimum of 95% argon.

Ту	Typical Chemistry Analysis				
С	Cr	Ni	Mn	Si	Р
0.06		35/	1.55	0.66	0.010
S	Cu	Мо	V	Al	TI
0.010	75				

Typical Mechanical Properties					
Tensile Strength	87,200 psi				
Yield Strength	78,900 psi				
Elongation	25 %				

E70T-1

Specifications: AWS A5.20, ASAME SFA 5.20

Classification: E70T-1C, E70T-9C

Description:

E70T-1 is an electrode with a unique slag system which allows multiple weld beads to be stacked in a horizontal fillet with a minimum of "roll" or convexity. A carbon steel electrode intended for single and multiple pass welding in flat and horizontal fillet positions, E70T-1 is designed for use with carbon dioxide gas shielding. This is an excellent electrode for welding plates such as ASTM A36, A285, A515 and A516.

Typical Chemistry Analysis					
С	Cr	Ni	Mn	Si	Р
0.06			1.56	0.58	0.006
S	Cu	Мо	V	Al	TI
0.010					

Typical Mechanical Properties					
Tensile Strength	88,600 psi				
Yield Strength	73,000 psi				
Elongation	24 %				

E70T-2

Specifications: AWS A5.20, ASAME SFA 5.20

Classification: E70T-2C

Description:

E70T-2 contains a high level of deoxidizers that allow it to weld over heavier levels of rust and mill scale. This CO2 gas-shielded, flux cored electrode is intended for the single pass welding of carbon steel in flat positions and horizontal fillets. E70T-2 is designed for single pass welding on general steel plate fabrication weldments with good welder appeal when welding on mill scale, rust, or other mild contaminants. Low spatter levels, with easily detachable slad.

Ту	Typical Chemistry Analysis				
С	Cr	Ni	Mn	Si	Р
١	Not Specified: as PER AWS				
S	Cu	Мо	V	Al	TI
1		J			

Typical Mechanical Properties				
Tensile Strength	81,000 psi			
Yield Strength	N/R psi			
Guided Bend Test	Meets AWS Req.			



E70T-4

Specifications: AWS A5.20, SFA 5.20

Classification: E70T-4

Description:

E70T-4 is a carbon steel, flux cored electrode for use without external gas-shielding in multiple pass welding of carbon steels. This electrode is intended for flat position welding of grooves and fillets and horizontal fillet welding with extremely high deposition rates. E70T-4 is ideally suited for welding applications where gas-shielded electrodes may have problems, such as outdoors or in windy conditions

Typical Chemistry Analysis					
С	Cr	Ni	Mn	Si	Р
0.20		33/1	0.50	0.17	0.008
S	Cu	Мо	V	Al	TI
0.003		4.1		1.59	7.45

Typical Mechanical Properties				
Tensile Strength	87,800 psi			
Yield Strength	65,000 psi			
Elongation	26.5 %			

E71T-1/T-9

Specifications: ANSI/AWS A5.20, SFA 5.20

Classification: E71T-1C, E71T-1M, E71T-9C,

E71T-9M

Description:

E71T-1/T-9 is a flux cored, gas-shielded electrode intended for single and multiple pass welding of carbon steels in all positions. This electrode is designed for use with 100% $\rm CO_2$ and 75-80% Argon / 20-25% $\rm CO_2$ shielding gas mixtures.E71T-1/T-9 is superb for applications where the following steels may be employed: ASTM A131, A285, A515 Gr 70 and A516 Gr 70.

Ту	Typical Chemistry Analysis					
С	Cr	Ni	Mn	Si	Р	
0.05			1.39	0.56	0.008	
S	Cu	Мо	V	Al	TI	
0.010				H	7)	

Typical Mechanical Properties*				
Tensile Strength	89,100 psi			
Yield Strength	78,100 psi			
Elongation	26.3 %			

*using CO₂ gas

E71T-1/T-12MJ

Specifications: ANSI/AWS A5.20, SFA 5.20

Classification: E71T-1C, E71T-1M, E71T-9C

E71T-9M, E71T-12C, E71T-12MJ

Description:

E71T-1/T-12MJ is designed for single and multiple pass welding of carbon steels in all positions. There are numerous applications for which E71T-1/T-12MJ is well suited, many of them previously reserved for EXX18 covered electrodes. This electrode excels in welding where requirements are stringent, such as offshore platforms and pipe systems, pressure vessels, oil and gas pipelines, petrochemical pipelines, structural steel, bridge fabrication,etc. E71T1/T-12MJ has excellent CVN toughness with very low fume generation rates and diffusible hydrogen levels. E71T1/T-12MJ easily exceeds all "recommended requirements."

Typical Chemistry Analysis					
С	Cr	Ni	Mn	Si	Р
0.06		0.39	1.30	0.42	0.009
S	Cu	Мо	V	Al	TI
0.090	1			D/A	

Typical Mechanical Properties*			
Tensile Strength	81,500 psi		
Yield Strength	66,700 psi		
Elongation	28.0 %		
CVN @ 0°F	110 ft.lbs		
CVN @ -50°F	37 ft.lbs		
	*using CO ₂ gas		



E71T-11

Specifications: AWS A5.20, SFA 5.20

Classification: E71T-11

Description:

E71T-11 is a carbon steel, flux cored wire for use without external gas shielding. This flux cored wire is intended for semi-automatic and automatic welding of carbon steel in single pass and limited multiple pass applications. E71T-11 is designed to operate on straight polarity (DCEN) and is well suited for butt, lap, and fillet welds on steels from 16 gauge through 1/2". It's versatility makes it an excellent selection for assembly and maintenance welding in all positions.

Typical Chemistry Analysis							
С	Cr	Ni	Mn	Si	Р		
0.21		35/	0.30	0.15	0.010		
S	Cu	Мо	V	Al	TI		
0.010	75	W.L		1.50	LET		

Typical Mechanical Properties						
Tensile Strength	89,400 psi					
Yield Strength	66,600 psi					
Elongation	23.5 %					

E71T-GS

<u>Specifications:</u> AWS A5.20, SFA 5.20 Classification: E71T-GS, E71T-14

Description:

E71T-GS is a carbon steel, flux cored wire for use without an external shielding gas. This flux cored wire is intended for welding thin gauge carbon steel, ranging from 3/16" to 22 gauge. Applications are limited to single-pass weldments. It is also designed to weld quite effectively over galvanized material and can be used on certain aluminized surfaces as well. E71T-GS requires no external shielding gas and should be welded with DCEN (straight polarity).

Typical Chemistry Analysis*						
С	Cr	Ni	Mn	Si	Р	
43					v_{i}	
S	Cu	Мо	V	Al	TI	

* The composition of the weld metal is not particularly meaningfull since electrodes of these classifications are intended only for single pass welds

Typical Mechanical Properties							
Tensile Strength 86,400 psi							
Longitudinal Guided Bend Test	Satisfactory						

E80T1-B2

Specifications: AWS A5.29, SFA 5.29

Classification: E80ST1-B2C

Description:

E80T1-B2 is a low alloy steel electrode for flux cored arc welding using 100% $\rm CO_2$ gas. It is designed for single and multiple pass welding in the flat and horizontal positions of certain chromium-molybdenum steel and pipe grades, where 1 1/4% $\rm Cr$ and 1/2% $\rm Mo$ are required in the weld deposit. E80T1-B2 is an excellent selection to weld steels subject to high temperature service such as ASTM A387, $\rm Gr$. 11 plate and A335 P11 pipe.

Ту	Typical Chemistry Analysis							
С	Cr	Ni	Mn	Si	Р			
0.06	1.20		0.63	0.57	0.010			
S	Cu	Мо	V	Al	TI			
0.010		0.50	1					

Typical Mechanical Properties*						
Tensile Strength	91,000 psi					
Yield Strength	81,500 psi					
Elongation	20.0 %					
*Strace R	elieved - 1 Hour at 1275°F					



E80T1-Ni1

Specifications: AWS A5.29, SFA 5.29

Classification: E80T1-Ni1C

Description:

E80T1-Ni1 is a gas-shielded electrode intended for single and multiple pass horizontal fillet and flat position welding of carbon and low alloy steels requiring a minimum tensile strength of 80,000 psi and good CVN toughness (30 ft·lbs. @ -20° F). It is the ideal selection for welding steels combining moderate tensile strength and excellent CVN toughness, such as ASTM A572 Gr60, A302, A575, and A734.

Typical Chemistry Analysis							
С	Cr	Ni	Mn	Si	Р		
0.05		0.98	1.10	0.25	0.010		
S	Cu	Мо	V	Al	TI		
0.010	27	W/A					

Typical Mechanical Properties						
Tensile Strength	86,400 psi					
Yield Strength	73,700 psi					
Elongation	27.0 %					

E80T5-B2

Specifications: AWS A5.29, SFA 5.29

Classification: E80T5-B2C

Typical Chemistry Analysis Cr Ni Mn 0.06 1.25 0.70 0.40 0.010 Cu S Mo Al TI 0.010 0.52

Description:

E80T5-B2 is intended for single and multiple pass welding of certain chromium-molybdenum steels, plate and pipe requiring 1 1/4% Cr and 1/2% Mo in the weld deposit such as ASTM A387 Gr 11 plate and A335 Gr P11 pipe. The basic slag limits welding to horizontal fillets and the flat position. As with all basic slag electrodes, welder appeal is limited compared to rutile slag electrodes.

Typical Mechanical Properties*					
Tensile Strength	94,000 psi				
Yield Strength	82,000 psi				
Elongation	25 %				
*C+ D	-lieured 1 Herry et 1275°F				

*Stress Relieved - 1 Hour at 1275°F

E81T1-A1

Specifications: AWS A5.29, SFA 5.29

Classification: E81T1-A1C

Typical Chemistry Analysis							
С	Cr	Ni	Mn	Si	Р		
0.05) h	0.97	0.35	0.010		
S	Cu	Мо	V	Al	TI		
0.010		0.53					

Description:

E81T1-A1 is a low alloy steel electrode for flux cored arc welding using CO_2 shielding gas. This electrode is intended for single and multiple pass welding, in all positions, on steels where the addition of 1/2% Mo is required in the deposited weld metal. E81T1-A1 is ideally suited for welding certain C-Mo steels used in the fabrication of boilers and pressure vessels such as ASTM A161, A204 and A302 Gr. A plate and A335-P1 pipe.

Typical Mechanical Properties*						
Tensile Strength	93,300 psi					
Yield Strength	84,600 psi					
Elongation	23.5 %					
*Stress Relieved - 1 Hour at 1150°F						



E81T1-B2

Specifications: AWS A5.29, SFA 5.29

Classification: E81T1-B2C

Description:

E81T1-B2 is a low alloy steel electrode for flux cored arc welding with external gas shielding. This electrode is intended for single and multiple pass welding, in all positions, of certain Cr-Mo steel plate and pipe, where $1\frac{1}{4}$ % Cr and $1\frac{1}{2}$ % Mo are required in the weld deposit. CO_2 is the recommended shielding gas. E81T1-B2 is formulated to weld steels subject to high temperature service such as A387 Gr. 11 plate and A335 P11 pipe.

Ту	Typical Chemistry Analysis						
С	Cr	Ni	Mn	Si	Р		
0.07	1.15	37/	0.81	0.28	0.01		
S	Cu	Мо	V	Al	TI		
0.01		0.45					

Typical Mechanical Properties*					
Tensile Strength	94,200 psi				
Yield Strength	84,200 psi				
Elongation	20 %				

E81T1-B2L

Specifications: AWS A5.29, SFA 5.29

Classification: E81T1-B2LC

Description:

E81T1-B2L is a premium low alloy steel electrode intended for single and multiple pass, all position welding of certain 11/4% Cr and 11/2% Mo steel plate and pipe, where lower carbon levels are required in the weld deposit. E81T1-B2L is specially designed to weld thinwalled A335-P11 pipe or tube and is well suited for use in the fabrication of pressure vessels, heat exchangers and boilers.

Typical Chemistry Analysis					
С	Cr	Ni	Mn	Si	Р
0.03	1.10		0.80		0.010
S	Cu	Мо	V	Al	TI
0.010	0.30	0.50			

92,200 psi
79,400 psi
22 %

*Stress Relieved - 1 Hour at 1275°

E81T1-B6

Specifications: AWS A5.29, ASME SFA 5.29

Classification: E81T1-B6M

Description:

E81T1-B6 is a low alloy steel electrode intended for single and multiple pass, all position welding of certain chromium-molybdenum steels where a weld deposit of 5% Cr and 1/2% Mo is required. E81T1-B6 is specially formulated for welding tube, pipe and plate subjected to high temperature service, such as A213-T5 and A335-P5.

Typical Chemistry Analysis						
С	Cr	Ni	Mn	Si	Р	
0.08	4.85	>~	0.47	0.27	0.006	
S	Cu	Мо	V	Al	TI	
0.010		0.56				

Typical Mechanical Properties*						
Tensile Strength	89,000 psi					
Yield Strength	79,200 psi					
Elongation	19.9 %					

*Stress Relieved - 1 Hour at 1375°i



E81T1-B8

Specifications: AWS A5.29, ASME SFA 5.29

Classification: E81T1-B8M

Description:

E81T1-B8 is an all position, flux cored electrode formulated for single and multiple pass welding of 9% Cr and 1% Mo such as A335-P9 piping and A213-T9 tubing. Typical applications involve high temperature service in the petrochemical and petroleum industry.

Ту	Typical Chemistry Analysis							
С	Cr	Ni	Mn	Si	Р			
0.09	9.30	7//	0.50	0.35	0.010			
S	Cu	Мо	V	Al	TI			
0.010		1.05		$\exists \langle$				
			Thirt					
	3			1//				

Typical Mechanical Properties*					
Tensile Strength	96,300 psi				
Yield Strength	78,000 psi				
Elongation	20 %				

*Stress Relieved - 1 Hour at 1375°F

E81T1-Ni1

<u>Specifications:</u> AWS A5.29, SFA 5.29 Classification: E81T1-Ni1C, E81T1-Ni1M

Description:

E81T1-Ni1 is a low alloy steel electrode for flux cored arc welding with external gas shielding. This electrode is intended for single and multiple pass welding, in all positions, on carbon and low alloy steels requiring good charpy v-notch toughness at subzero temperatures. Both 100% CO₂ and 75-80% Argon – balance CO₂ can be utilized with E81T1-Ni1. Typical steels welded with E81T1-Ni1 include ASTM A572, A302, A588 and A734

Typical Chemistry Analysis*						
С	Cr	Ni	Mn	Si	Р	
0.04	el y	1.00	1.04	0.44	0.010	
S	Cu	Мо	V	Al	TI	
0.010						

Typical Mechanical Properties*				
Tensile Strength	83,500 psi			
Yield Strength	76,900 psi			
Elongation	23.5 %			
	4111 4000/ 00			

*Using 100% CO₁ gas

E81T1-Ni2

Specifications: AWS A5.29, SFA 5.29

Classification: E81T1-Ni2C, E81T1-Ni2M

Description:

E81T1-Ni2 is an excellent selection for welding steels which require good CVN toughness (50 ft·lbs. @ -40° F) and tensile strength in the range of 80,000-100,000 psi. It is designed for single and multiple pass welding of carbon and certain low alloy steels in all positions using both 100% CO₂ and 75-80% Argon – balance CO₂. E81T1-Ni2 is a fine choice for welding steels such as ASTM A572, A575 and A734.

Typical Chemistry Analysis*					
С	Cr	Ni	Mn	Si	Р
0.05		2.40	0.83	0.29	0.010
S	Cu	Мо	V	Al	TI
0.010					

Typical Mechanical Properties*					
Tensile Strength	87,000 psi				
Yield Strength	73,000 psi				
Elongation	26 %				

*Using 100% CO₂ gas



E81T1-W2

Specifications: AWS A5.29, SFA 5.29

Classification: E81T1-W2C

Description:

E81T1-W2 is a gas-shielded, flux cored, low alloy steel electrode for all position welding of weathering steels. Welder appeal is excellent with a spray transfer, thin slag which removes easily and cleanly, and a smooth bead profile. E81T1-W2 contains alloy additions which match those of the "weathering" steels such as ASTM A588. This provides weld metal which matches the corrosion resistance and coloring of the weathering-type structural steels.

Ту	Typical Chemistry Analysis						
С	Cr	Ni	Mn	Si	Р		
0.04	0.60	0.70	0.94	0.52	0.010		
S	Cu	Мо	V	Al	TI		
0.010	0.59						

Typical Mechanical Properties*			
Tensile Strength	91,000 psi		
Yield Strength	81,500 psi		
Elongation	24 %		

E91T1-B3

Specifications: AWS A5.29, ASME SFA 5.29

Classification: E91T1-B3C, B3M

Description:

E91T1-B3 is specifically formulated for welding materials subjected to high temperature service using both 100% CO₂ and 75% Argon – balance CO₂ gas. It provides single and multiple pass, all position welding of certain Cr-Mo steels such as A387 Gr. 22 plate and A335 P22 pipe and leaves a 21/4% Cr / 1% Mo weld metal deposit.

Ту	Typical Chemistry Analysis					
С	Cr	Ni	Mn	Si	Р	
0.08	2.27		0.51	0.59	0.01	
S	Cu	Мо	V	Al	TI	
0.01		0.99				

Typical Mechanical Properties*				
Tensile Strength	102,100 psi			
Yield Strength	87,400 psi			
Elongation	18 %			

E91T1-B9

Specifications: AWS A5.29, ASME SFA 5.29

Classification: E91T1-B9M

Description:

Designed for single and multiple pass welding of 9% Cr and 1% Mo steels, the E91T1-B9 all position, flux cored electrode contains small additions of Nb (also known as Cb), V, and N to improve long term creep properties. E91T1-B9 is used to weld steels such as A387 Gr 91 plate; A335 P91 and A369-FP91 piping; A199-T91, A200-T91 and A213-T91 tubing; A182-F91 forgings; as well as fittings and castings of similar composition.

Ту	Typical Chemistry Analysis						
С	Cr	Ni	Mn	Si	Р		
0.1	9	0.35	0.7	0.25	0.01		
S	Cu	Мо	V	Al	N		
0.01		1	0.2	<0.10	0.04		
Nb		72					
0.04		100		4			

Typical Mechanical Properties*			
Tensile Strength	106,900 psi		
Yield Strength	86,100 psi		
Elongation	19 %		
100 0110 0 1000 F	TEN: 1 (0EN: 0.0		



E91T1-K2

Specifications: AWS A5.29, ASME SFA 5.29

Classification: E91T1-K2C

Description:

E91T1-K2 proves an ideal selection for weldments requiring 90,000 psi minimum tensile strength and good CVN toughness values. Use either 100% $\rm CO_2$ or 75-80% Argon – balance $\rm CO_2$ shielding gas. This gas-shielded flux cored electrode is intended for single and multiple pass welding of steels such as HY-80, HY-100, ASTM A710, A514 and other similar high strength steels.

Typical Chemistry Analysis*					
С	Cr	Ni/	Mn	Si	Р
0.05		1.64	1.32	0.51	0.010
S	Cu	Мо	V	Al	TI
0.010	(4)	0.24		$\exists i$) —-

Typical Mechanical Properties*		
Tensile Strength	103,400 psi	
Yield Strength	91,700 psi	
Elongation	22 %	
	*using CO	

E100T1-K3

Specifications: AWS A5.29, SFA 5.29

Classification: E100T1-K3

Typical Chemistry Analysis C Ni Mn 0.05 1.80 1.20 0.30 0.012 S Cu Мо ΑI TI 0.012 0.35

Description:

E100T1-K3 is a gas shielded, low alloy steel electrode for flux cored arc welding of certain high strength low alloy steels such as A514 and HY-80. This electrode is intended for single and multiple pass welding in horizontal fillets and the flat position.E100T1-K3 should be used only with CO_2 gas shielding.

Typical Mechanical Properties			
Tensile Strength	105,700 psi		
Yield Strength	94,000 psi		
Elongation 23 %			

E100T5-D2

Specifications: AWS A5.29, SFA 5.29

Classification: E100T5-D2

Ту	Typical Chemistry Analysis				
С	Cr	Ni	Mn	Si	Р
0.05			1.75	0.45	0.010
S	Cu	Мо	V	Al	TI
0.010		0.48			

Description:

With a deposited weld metal of approximately 1 1/2% Mn and 1/2% Mo, E100T5-D2 is a low alloy steel electrode with a basic slag system used to weld certain manganese-molybdenum steels and castings such as ASTM A302 GrB and castings such as ASTM A49, A291 and A735. This electrode is intended for single and multiple pass welding in horizontal fillets and the flat position. The preferred shielding gas for E100T5-D2 is 100% CO₂.

Typical Mechanical Properties				
Tensile Strength	100,600 psi			
Yield Strength	90,700 psi			
Elongation	24 %			





E110T5-K3

Specifications: AWS A5029, SFA 5.29

Classification: E110T5-K3C

Description:

E110T5-K3 is a low alloy steel, gas-shielded, flux cored electrode for horizontal fillet and flat position welding of certain HSLA steels. This electrode is capable of single and multiple pass welding. The arc transfer is globular with a convex bead profile due to the nature of a basic slag system.These characteristics make the E110T5-K3 an ideal selection for welding high strength, low alloy steels such as T-1, ASTM A514 and HY-100. Shielding gas is 100% CO₂.

Ту	Typical Chemistry Analysis					
С	Cr	Ni	Mn	Si	Р	
0.04		2.01	1.64	0.46	0.010	
S	Cu	Мо	V	Al	TI	
0.010		0.46				

Typical Mechanical Properties*				
Tensile Strength	116,000 psi			
Yield Strength	104,000 psi			
Elongation	20 %			

E111T1-K3C, K3M

Specifications: AWS/ANSI A5.29, SFA 5.29

Classification: E111T1-K3C, E111T1-K3M

Description:

E111T1-K3C/M are designed for single and multiple pass welding, in all positions, of specific high strength, low alloy steels where a minimum tensile strength of 110,000 psi is important. Both premium electrodes are ideal choices for matching the tensile strength of certain base metals such as ASTM A514 and HY-100. E111T1-K3C/M can be welded using either 100% CO₂ or 75-80% Argon – balance CO₂.

Ту	Typical Chemistry Analysis					
С	Cr	Ni	Mn	Si	Р	
0.05	EVy	1.96	1.76	0.35	0.010	
S	Cu	Мо	V	Al	TI	
0.010		0.40				

Typical Mechanical Properties				
Tensile Strength	113,600 psi			
Yield Strength	109,700 psi			
Elongation	18 %			

E120T5-K4

Specifications: AWS/ANSI A5.29, SFA 5.29

Classification: E120T5-K4C

Description:

E120T5-K4 is a low alloy steel electrode for flux cored arc welding with external gas-shielding. This electrode is intended for flat and horizontal fillet welding of certain low alloy steels where a minimum tensile strength of 120,000 psi and good low temperature notch toughness are required. E120T5-K4 is also a good selection for welding steels such as HY-100 and ASTM A514 and for welding abrasion resistant steels to HSLA and carbon steels. Co₂ is the recommended shielding gas.

Typical Chemistry Analysis					
С	Cr	Ni	Mn	Si	Р
0.04	0.57	2.27	1.90	0.42	0.010
S	Cu	Мо	V	Al	TI
0.010		0.60			

Typical Mechanical Properties				
Tensile Strength	132,100 psi			
Yield Strength	116,000 psi			
Elongation	15 %			



4130LN

Specifications: No AWS Specification

Classification:

Description:

4130LN is a basic flux cored electrode designed to weld 4130, and other steels of similar composition, such as 4140 and 8630, following post weld heat treatment. It is not recommended for as-welded applications. The basic slag system assures low weld metal hydrogen in the weld area, which is critical in preventing cracking in sensitive steels such as 4130.

Ту	Typical Chemistry Analysis					
С	Cr	Ni	Mn	Si	Р	
0.2	0.64	0.802	1.18	0.7	0.008	
S	Cu	Мо	V	Al	TI	
0.013	7	0.21	P			

Typical Mechanical Properties				
Tensile Strength	106,900 psi			
Yield Strength	98,600 psi			
Elongation	20.8 %			

Please note that not all of the Mild Steel & Low Alloy Flux cored Wires 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.

