

Select 70

CLASSIFICATIONS: E70T-1, E70T-9 per AWS A5.20, ASME SFA 5.20

Select 70 is intended for single and multiple pass welding of carbon and certain low alloy steels in the flat and horizontal fillet positions. This electrode is designed for use with carbon dioxide shielding gas.

APPLICATIONS: Select 70 is ideal for those applications involving the welding of structural carbon steels, where high deposition rates and superior penetration characteristics are preferred. An excellent choice for welding steels such as A36, A285, A515 and A516.

DIAMETERS: 1/16", 5/64", 3/32", 7/64", 1/8"

SHIELDING GAS: 100% CO₂, 35-50 cfh

WELDING POSITIONS: Flat and Horizontal



CHARACTERISTICS:

- Exceptionally smooth arc transfer over a broad amperage range.
- Extremely high welder appeal.
- Very low spatter, easily removed slag.
- High deoxidation level facilitates welding over mill scale and rust.

TYPICAL MECHANICAL PROPERTIES:

Ultimate Tensile Strength (psi)	88,000
Yield Strength (psi)	75,000
Percent Elongation	25
CVN (ft•lb f) @ 0°F	48
@ -20°F	42

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	Mn	Si	P	S
	.06	1.45	.71	.010	.013

Select 71

CLASSIFICATIONS: E70T-1, E70T-9 per AWS A5.20, ASME SFA 5.20

Select 71 is an improved version of Select 70, intended for single and multi-pass welds of carbon steels in the flat position and for horizontal fillets. The preferred shielding gas for this electrode is 100% carbon dioxide.

APPLICATIONS: Select 71 has all the good attributes of Select 70, with a tremendous improvement in bead profile. The bead geometry of Select 71 is much flatter, with minimal roll, or better tie-in, at the toe of the fillet. Also, it is much easier to “stack” weld beads with Select 71 when building up large horizontal fillets. This is an excellent electrode for welding plates such as ASTM A36, A285, A515 and A516, as found in the fabrication of earthmoving equipment, mining machinery, structural steel and railcar fabrication.

DIAMETERS: 1/16", 5/64", 3/32", 7/64", 1/8"

SHIELDING GAS: 100% CO₂, 35-50 cfh

WELDING POSITIONS: Flat and Horizontal



CHARACTERISTICS:

- Extremely smooth welding arc over a broad range of amperage and voltage.
- Quite low spatter.
- Slag removes very easily.
- Exacting slag characteristics facilitate a flat bead profile and stacking in multipass fillets.

TYPICAL MECHANICAL PROPERTIES:

Ultimate Tensile Strength (psi)	88,600
Yield Strength (psi)	73,000
Percent Elongation	24
CVN (ft•lb f) @ 0°F	34

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	Mn	Si	P	S
	.061	1.56	.58	.006	.010

Select 79

CLASSIFICATIONS: E70T-1 per AWS A5.20, ASME SFA 5.20

Select 79 is an E70T-1 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, Select 79 is designed for use with carbon dioxide gas shielding.

APPLICATIONS: Select 79 excels when “stacking” or building fillets up on fairly thick carbon steels, such as in mining and earth moving equipment, large machine bases and other heavy component fabrications. Typical steels used in these applications are ASTM A36, A515 and A516.

DIAMETERS: 1/16", 5/64", 3/32"

SHIELDING GAS: 100% CO₂, 35-50 cfh

WELDING POSITIONS: Flat and Horizontal



CHARACTERISTICS:

- Excellent weld bead geometry.
- Arc transfer is a smooth globular spray with low spatter.
- Deoxidation level permits use with moderate mill scale.

TYPICAL MECHANICAL PROPERTIES:

Ultimate Tensile Strength (psi)	85,700
Yield Strength (psi)	77,500
Percent Elongation	26
CVN (ft•lb f) @ 0°F	29

TYPICAL DEPOSIT COMPOSITION*:

Wt%	C	Mn	Si	P	S
	.05	1.25	.75	.012	.012

* Welded and tested in accordance with A5.20

Select 97

CLASSIFICATIONS: E70T-1, E70T-9 per AWS A5.20, ASME SFA 5.20

Select 97 is intended for single and multiple pass welding of carbon steels where a minimum tensile strength of 70,000 psi is required. This electrode, which utilizes 100 percent carbon dioxide shielding gas, is specifically designed to reduce fumes.

APPLICATIONS: The lower fume generation rates of Select 97 render it well suited to welding indoors, or where less fume or smoke is desired. Select 97 can typically be applied in structural welds, steel fabrication and other general purpose weldments. Typically generates up to 30% less fume than conventional E70T-1 electrodes.

DIAMETERS: 1/16", 3/32"

SHIELDING GAS: 100% CO₂, 35-50 cfh

WELDING POSITIONS: Flat and Horizontal



CHARACTERISTICS:

- Emits lower fumes than conventional E70T-1 electrodes.
- Soft spray-like transfer with low spatter.
- Good welding characteristics.

TYPICAL MECHANICAL PROPERTIES:

Ultimate Tensile Strength (psi)	86,000
Yield Strength (psi)	77,800
Percent Elongation	25
CVN (ft•lb f) @ 0°F	36

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	Mn	Si	P	S
	.03	1.55	.50	.013	.011

Select 71P

CLASSIFICATIONS: E70T-1, T-1M per AWS A5.20, ASME SFA 5.20

APPROVALS: ABS 3-3Y (CO₂ and 92% Ar - 8% CO₂)

Select 71P is a gas-shielded, flux cored electrode intended to weld over primers used in the shipbuilding industry. This electrode is multiple pass, for use in the flat position and horizontal fillets. The preferred shielding gas is carbon dioxide, but mixtures up to 92% argon - 8% carbon dioxide may be used.

APPLICATIONS: Select 71P is specially formulated to weld over zinc-based and organic primers in the shipbuilding industry. The slag system and deoxidizers provide excellent resistance to the pitting which occurs when welding over primers used in shipbuilding, barge construction and offshore drilling platform fabrication. This electrode offers good welding performance, along with ease of slag removal and low spatter.

DIAMETERS: .045", .052", 1/16"

SHIELDING GAS: 100% CO₂ through 92% Ar - 8% CO₂, 35-50 cfh

WELDING POSITIONS: Flat and Horizontal



CHARACTERISTICS:

- Smooth arc transfer with low spatter.
- Porosity-free welds possible on primer coated steels.
- Good mechanical properties.
- Easy slag removal

TYPICAL MECHANICAL PROPERTIES:

Ultimate Tensile Strength (psi)	86,700
Yield Strength (psi)	73,400
Percent Elongation	22
CVN (ft•lb f) @ 0°F	44

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	Mn	Si	P	S
	.04	1.40	.49	.008	.007

Select Super 70

CLASSIFICATIONS: E70T-1 per AWS A5.20, ASME SFA 5.20

Select Super 70 is designed for single and multiple pass welding of deep groove welds in the flat position, where a minimal volume of slag coverage is desired. This electrode has a higher deposition efficiency than conventional E70T-1 electrodes, hence, horizontal fillets will exhibit a quite convex bead profile.

APPLICATIONS: Select Super 70 is a good choice for deep groove weldments such as J-grooves, where slag removal between each pass can be a problem. The high deposition efficiencies of this product make it ideal for welding construction machinery, earthmoving equipment and other applications involving heavy plate welding in the flat position.

DIAMETERS: 1/16", 5/64", 3/32"

SHIELDING GAS: 100% CO₂, 35-50 cfh

WELDING POSITIONS: Flat and Horizontal



CHARACTERISTICS:

- Smooth arc transfer with low spatter.
- Thin slag removes easily and cleanly in a deep groove.
- High deposition efficiencies in the range of 88-92%.

TYPICAL MECHANICAL PROPERTIES:

Ultimate Tensile Strength (psi)	83,000
Yield Strength (psi)	72,000
Percent Elongation	27
CVN (ft•lb f) @ 0°F	38

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	Mn	P	S	Si
	.04	1.30	.010	.011	.55

Select 710

CLASSIFICATIONS: E71T-1, E71T-1M per AWS A5.20, ASME SFA 5.20

Select 710 is an all position, flux cored electrode which is intended for the single and multiple pass welding of carbon and certain low alloy steels where a minimum tensile strength of 70,000 psi is required. Gas-shielding can be either 100% CO₂ or 75% Ar/25% CO₂.

APPLICATIONS: Select 710 is a superb choice for the general purpose, flux cored welding of steels requiring a minimum of 70,000 psi tensile strength. Typical applications include structural steel, farm machinery, construction equipment and general carbon steel fabrication.

DIAMETERS: .035", .045", .052", 1/16"

SHIELDING GAS: 100% CO₂, 75-80% Ar/balance CO₂, 35-50 cfh

WELDING POSITIONS: All positions



CHARACTERISTICS:

- Deep penetration eliminates lack of fusion problems.
- Smooth and stable arc transfer with low spatter emission.
- Fast freezing slag removes easily.
- Outstanding welder appeal.

TYPICAL MECHANICAL PROPERTIES:

Ultimate Tensile Strength (psi)	82,800
Yield Strength (psi)	71,000
Percent Elongation	25
CVN (ft•lb f) @ 0°F	58

TYPICAL DEPOSIT COMPOSITION

Wt%	C	Mn	P	S	Si
	.05	1.00	.008	.015	.74

Select 712

CLASSIFICATIONS: E71T-1, T-1M, E71T-9, T-9M per AWS A5.20, ASME SFA 5.20

APPROVALS: ABS 3SA-3YSA

Select 712 is an improved E71T-1, featuring lower spatter and fume emissions than conventional products in this class. This electrode is intended for single and multiple pass welding of carbon and certain low alloy steels in all positions, particularly in the overhead and vertical up positions. Select 712 is used where a minimum tensile strength of 70,000 psi is required in the deposited weld metal.

APPLICATIONS: Incomparable weldability in all positions makes Select 712 a good choice for general plate fabrication, structural steel welding, shipbuilding, steel fabrication and any instance where lower fume and spatter emissions are required. The reduced spatter is especially attractive in those operations where painting is performed immediately after welding.

DIAMETERS: .035", .045", .052", 1/16"

SHIELDING GAS: 100% CO₂, 75-80% Ar/balance CO₂, 35-50 cfh

WELDING POSITIONS: All positions



CHARACTERISTICS:

- 40% - 60% less fume than conventional electrodes in this class.
- Spatter is virtually nonexistent.
- Extremely smooth and stable transfer reduces noise.
- Fast freezing slag improves productivity.
- Performs optimally on 75-80% Ar/balance CO₂.

TYPICAL MECHANICAL PROPERTIES:

	CO ₂	75% Ar/ 25% CO ₂
Ultimate Tensile Strength (psi)	81,500	86,200
Yield Strength (psi)	70,600	77,700
Percent Elongation	26	27
CVN (ft•lb f) @ 0°F	74	80
@ -20°F	70	77

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	Mn	P	S	Si
	.02	1.16	.010	.015	.41

Select 714

CLASSIFICATIONS: E71T-1/E71T-1M, E71T-9/E71T-9M per AWS A5.20, ASME SFA 5.20

APPROVALS: ABS 3-3Y

Select 714 is designed for applications where all position capability is required but horizontal fillet and flat position welding is dominant. Select 714 performs optimally with 100 percent carbon dioxide shielding, but can be used with 75-80 percent argon/balance carbon dioxide, with no deterioration in welding performance.

APPLICATIONS: The good toughness properties of Select 714 make it an especially smart choice for the welding of fine grained steels, such as ASTM A515 and 516. Typical applications are structural welds, general steel fabrication, construction equipment and general railcar welding.

DIAMETERS: .035", .045", .052", 1/16"

SHIELDING GAS: 100% CO₂, 75-80% Ar/balance CO₂, 35-50 cfh

WELDING POSITIONS: All positions



CHARACTERISTICS:

- Much lower fume emissions than conventional rutile-based electrodes.
- Specially formulated to produce low spatter horizontal fillets.
- Smooth weld bead profile and excellent tie-in.
- Very good CVN toughness values at subzero temperatures.

TYPICAL MECHANICAL PROPERTIES*:

	CO ₂	75% Ar/ 25% CO ₂
Ultimate Tensile Strength (psi)	80,000	90,000
Yield Strength (psi)	73,000	89,000
Percent Elongation	25	22
CVN (ft•lb f) @ 0°F	90	48
@ -20°F	68	38

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	MN	P	S	Si
CO ₂	.02	1.28	.008	.013	.52
75-80Ar/ Balance CO ₂	.02	1.52	.009	.015	.69

Select 716

CLASSIFICATIONS: E71T-1, E71T-9 per AWS A5.20, ASME SFA 5.20

APPROVALS: ABS 3SA-3YSA

Select 716 is an excellent choice for those applications requiring enhanced all position capability, good mechanical properties, or where carbon dioxide is the preferred shielding gas. This electrode is designed for single and multiple pass welding of carbon steels.

APPLICATIONS: Select 716 is specially formulated to weld over moderate rust and mill scale without trouble. Typical examples of where this electrode can be used are railcar fabrication and repair, shipbuilding and general steel fabrication.

DIAMETERS: .035", .045", .052", 1/16"

SHIELDING GAS: 100% CO₂, 35-50 cfh

WELDING POSITIONS: All positions



CHARACTERISTICS:

- Smooth arc transfer and low spatter
- Fast freezing slag facilitates all position capability.

TYPICAL MECHANICAL PROPERTIES:

Ultimate Tensile Strength (psi)	79,500
Yield Strength (psi)	76,000
Percent Elongation	26
CVN (ft•lb f) @ 0°F	93

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	Mn	P	S	Si
	.03	1.15	.013	.015	.35

Select 717

CLASSIFICATIONS: E71T-1M, T-9M per AWS A5.20, ASME SFA 5.20

Select 717 is a flux cored electrode specially formulated to weld with high argon gas mixtures. Intended for single and multiple pass welding of carbon steels in all positions. The recommended shielding gas is argon with 5-25% carbon dioxide.

APPLICATIONS: Select 717 is best suited for situations where lower fume levels are required or higher out of position productivity is desired. Select 717 may be used to join steels such as ASTM A36, A515 Gr 70, A516 Gr70 and other fine grained steels. Typical applications include railcars, heavy equipment, structural fabrication and general plate fabrication.

DIAMETERS: .045", .052", 1/16"

SHIELDING GAS: 75-95% Ar/balance CO₂, 35-50 cfh

WELDING POSITIONS: All positions



CHARACTERISTICS:

- Very smooth arc transfer with virtually no spatter.
- Exceptionally low fume generation.
- Maintains handling characteristics in higher argon mixtures.
- Quick freezing slag allows for very high deposition rates.

TYPICAL MECHANICAL PROPERTIES:

	75%Ar/ 25%CO ₂	90%Ar/ 10%CO ₂
Ultimate Tensile Strength (psi)	82,400	89,500
Yield Strength (psi)	65,600	77,300
Percent Elongation	27	24
CVN (ft•lb f) @ 0° F	85	95
@ -20° F	53	90

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	MN	P	S	Si
75Ar/25CO ₂	.04	.97	.010	.010	.45
90Ar/10CO ₂	.04	1.06	.009	.010	.52

Select 720

CLASSIFICATIONS: E71T-1, T-1M, E71T-12, T-12M per AWS A5.20, ASME SFA 5.20, MIL-71T-1 HYC and MIL-71T-1 HYM per MIL-E-24403/1

APPROVALS: ABS 3SA-3YSA, Lloyd's 3S, 3YS, DnV 3 YMS

Select 720 is a flux cored electrode intended for single and multiple pass welding of carbon steels in all positions. The preferred shielding gas is carbon dioxide; the use of 70-80 percent argon/balance carbon dioxide may produce somewhat higher tensile strength with no significant difference in CVN toughness.

APPLICATIONS: Select 720 is an ideal choice for those weldments requiring good CVN toughness and high welder appeal when joining steels such as ASTM A36, A515 Gr 70, A516 Gr 70 and other fine grained steels. Such applications are found in shipbuilding, offshore drilling structures, structural welds and general plate fabrication.

DIAMETERS: .035", .045", .052", 1/16"

SHIELDING GAS: 100% CO₂, 75-80% Ar/balance CO₂, 35-50 cfh

WELDING POSITIONS: All positions



CHARACTERISTICS:

- Superb welder appeal in all position weldments.
- Minimal spatter and low fume emission.
- Smooth spray transfer with fast freezing slag.
- Superior CVN toughness at certain subzero temperatures.

TYPICAL MECHANICAL PROPERTIES:

	CO ₂	75%Ar/ 25%CO ₂
Ultimate Tensile Strength (psi)	82,500	90,200
Yield Strength (psi)	75,300	76,100
Percent Elongation	28.5	29.9
CVN (ft•lb f) @ 0° F	76	65
@ -20° F	54	61

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	MN	P	S	Si
CO ₂	.05	1.30	.008	.010	.43
75-80Ar/ Balance CO ₂	.05	1.67	.004	.009	.58

Select 720HP

CLASSIFICATIONS: E71T-1, T-1M, E71T-9, T-9M, E71T-12, T-12M per AWS A5.20, ASME SFA 5.20

APPROVALS: ABS 3SA-3YSA, Lloyd's 3S, 3YS, DnV 3 YMS

Select 720HP is the latest addition to the Select-Arc line of premium, flux cored, gas-shielded electrodes. This electrode is designed for single and multiple pass welding of carbon steels in all positions.

APPLICATIONS: There are numerous applications for which Select 720HP 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 and many others.

DIAMETERS: .035", .045", .052", 1/16"

SHIELDING GAS: 100% CO₂, 35-50 cfh

WELDING POSITIONS: All positions



CHARACTERISTICS:

- Excellent bead geometry.
- Extraordinary CVN toughness.
- Low fume generation rates and diffusible hydrogen levels.
- Exceptional resistance to moisture pickup.
- Easily exceeds all "recommended requirements."

TYPICAL MECHANICAL PROPERTIES:

Ultimate Tensile Strength (psi)	81,500
Yield Strength (psi)	66,700
Percent Elongation	28.4
CVN (ft•lb f) @ 0°F	110
@ -20°F	95

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	Mn	P	S	Si	Ni
	.06	1.30	.009	.009	.42	.39

Select 721

CLASSIFICATIONS: E71T-1, T-1M, E71T-9, T-9M per AWS A5.20, ASME SFA 5.20, MIL-71T-1 HYM per MIL-E-24403/1

Select 721 is a new E71T-1 electrode designed to conform to MIL-71T-1-HYM per Mil-E-24403/1, with the added capability of being used with argon/carbon dioxide blends of up to 95% argon. This electrode is approved and listed on the Navy QPL.

APPLICATIONS: Although Select 721 was designed with Naval shipbuilding in mind, it is well suited to many other applications such as commercial shipbuilding, general steel fabrication, construction and farm equipment, structural steel and pressure vessel fabrication.

DIAMETERS: .035", .045", .052", 1/16"

SHIELDING GAS: 75%Ar/25%CO₂, 35-50 cfh

WELDING POSITIONS: All positions



CHARACTERISTICS:

- Outstanding welder appeal.
- Low fume generation rates and spatter.
- Good CVN toughness to -20° F
- Diffusible hydrogen levels within MIL spec of 5 ml/100 gr of weld metal.

TYPICAL MECHANICAL PROPERTIES:

Ultimate Tensile Strength (psi)	78,100
Yield Strength (psi)	66,800
Percent Elongation	30.6
CVN (ft•lb f) @ -20°F	50

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	Mn	P	S	Si	Ni
	.06	1.09	.006	.007	.33	.44

Select 722

CLASSIFICATIONS: E71T-1, T-1M, E71T-9, T-9M per AWS A5.20, ASME SFA 5.20

Select 722 is a flux cored electrode formulated to enhance all position welding performance, particularly in the overhead position. The preferred shielding gas is 100 percent carbon dioxide but Select 722 is also designed to weld on blends of 75-80 percent argon/balance carbon dioxide.

APPLICATIONS: The combination of welding performance and mechanical properties make Select 722 well suited to demanding applications such as shipbuilding, railcar manufacture, structural welding and general fabrication.

DIAMETERS: .045", .052", 1/16"

SHIELDING GAS: 100% CO₂, 75-80%Ar/balance CO₂, 35-50 cfh

WELDING POSITIONS: All positions



CHARACTERISTICS:

- Smooth arc transfer with very little spatter emission.
- Quick freezing slag provides exceptional weldability.
- Deposits weld bead without convexity.

TYPICAL MECHANICAL PROPERTIES:

Ultimate Tensile Strength (psi)	86,500
Yield Strength (psi)	72,700
Percent Elongation	27.4
CVN (ft•lb f) @ 0°F	101
@ -20° F	67

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	Mn	P	S	Si
	.04	1.61	.007	.01	.62

Select 727

CLASSIFICATIONS: E71T-1, T-1M, E71T-9, T-9M per AWS A5.20, ASME SFA 5.20

APPROVALS: ABS 3SA-3YSA, Lloyd's 3S, 3YS, DnV 3 YMS

Select 727 is a new electrode formulated to provide improved deposition rates and enhanced welder appeal, compared to electrodes such as Select 710. This electrode is intended for single and multiple pass welding of carbon steels and is designed for use with 100 percent carbon dioxide and 75-80 percent argon/balance carbon dioxide.

APPLICATIONS: The combination of strength and toughness make Select 727 ideal for welding carbon steels requiring a minimum tensile strength of 70,000 psi. Select 727 is superb for such applications as structural steel, farm machinery, construction equipment, railcar fabrication and shipbuilding, where the following steels may be employed: ASTM A131, A285, A515 Gr 70 and A516 Gr 70.

DIAMETERS: .045", .052", 1/16"

SHIELDING GAS: 100% CO₂ and 75-80% Ar/balance CO₂, 35-50 cfh

WELDING POSITIONS: All positions



CHARACTERISTICS:

- Greatly reduced fume emissions and spatter level.
- Fast freezing slag facilitates all position capability.
- Superior bead geometry to conventional E71T-1 electrodes.

TYPICAL MECHANICAL PROPERTIES:

	75%Ar/ CO ₂	25% CO ₂
Ultimate Tensile Strength (psi)	90,600	89,100
Yield Strength (psi)	82,700	78,100
Percent Elongation	25.6	26.3
CVN (ft•lb f) @ 0° F	70	61
@ -20° F	32	40

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	MN	P	S	Si
CO ₂	.05	1.39	.008	.014	.56
75/25	.05	1.61	.005	.01	.64

Select 72

CLASSIFICATIONS: E70T-2 per AWS A5.20, ASME SFA 5.20

Select 72 utilizes a rutile based slag system and welds with quasi-spray transfer. This CO₂ gas-shielded, flux cored electrode is intended for the single pass welding of carbon steel in flat positions and horizontal fillets.

APPLICATIONS: Select 72 is designed for general steel plate fabrication weldments over mill scale, rust, or other mild contaminants.

DIAMETERS: 3/32", 1/8"

SHIELDING GAS: 100% CO₂, 35-50 cfh

WELDING POSITIONS: Flat and Horizontal



CHARACTERISTICS:

- Single pass electrode with good welder appeal.
- Low spatter levels, with easily detachable slag.
- Excellent weld bead profile.

TYPICAL MECHANICAL PROPERTIES:

Transverse Tensile Strength (psi): 85,000 (base metal fracture)
Longitudinal Bend Test: Conforms

Select Super 72

CLASSIFICATIONS: E70T-2 per AWS A5.20, ASME SFA 5.20

Select Super 72 is designed to provide clean, porosity-free welds on heavily oxidized steels and steels with certain glass coatings. This carbon steel, flux cored electrode is intended for single pass welding in the flat and horizontal positions. 100% CO₂ shielding gas is recommended.

APPLICATIONS: Select Super 72 is a superb selection for high speed welds on thin gauge carbon steels, particularly lap and butt welds. Typical applications include wheel and hub assemblies and hot water heater weldments, particularly the flue and bottom weldments.

CLASSIFICATIONS: E70T-2 per AWS A5.20, ASME SFA 5.20

DIAMETERS: 3/32", 1/8"

SHIELDING GAS: 100% CO₂, 35-50 cfh

WELDING POSITIONS: Flat and Horizontal



CHARACTERISTICS:

- Smooth spray-like arc transfer with low splatter.
- Complete coverage with very low slag volume.
- Fast travel speeds and good weld bead profiles.

TYPICAL MECHANICAL PROPERTIES:

Transverse Tensile Strength (psi): 75,000-85,000 (base metal fracture)
Guided Bend Test: Meets AWS requirements

Carbon Steel, Gas-Shielded Electrodes

Select 75

CLASSIFICATIONS: E70T-5 per ANSI/AWS A5.20, ASME SFA 5.20

Select 75 is a flux cored electrode designed with a basic slag system which provides better mechanical properties and diffusible hydrogen levels in the weld deposit than E70T-1 electrodes. Select 75 is intended for single and multiple pass welding of carbon and certain low alloy steels where a minimum tensile strength of 70,000 psi and good low temperature notch toughness are required.

APPLICATIONS: Select 75 is an ideal choice for weldments involving difficult steels, such as high carbon and free-machining types. It is well suited for heavy section fabrications such as crane sections, heavy machine bases, boom assemblies and construction equipment. Typical steels welded with this electrode are ASTM A36, A285, A515 Gr. 70 and A516 Gr. 70.

DIAMETERS: 1/16", 3/32"

SHIELDING GAS: 100% CO₂, 35-50 cfh

WELDING POSITIONS: Flat and Horizontal



CHARACTERISTICS:

- Better welding performance than conventional T-5 electrodes.
- Slag removal and bead geometry similar to E7018 electrodes.
- Low diffusible hydrogen levels.

TYPICAL MECHANICAL PROPERTIES:

Ultimate Tensile Strength (psi)	81,400
Yield Strength (psi)	68,200
Percent Elongation	29.5
CVN (ft•lb f) @ -20°F	77

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	Mn	P	S	Si
	.05	1.29	.009	.014	.44

Low Alloy, Gas-Shielded, Carbon-Molybdenum Electrodes

Select 81-A1

CLASSIFICATIONS: E80T1-A1 per AWS A5.29, ASME SFA 5.29

Select 81-A1 is a low alloy steel electrode intended for single and multiple pass welding of certain carbon-molybdenum steels where the addition of 1/2 percent of molybdenum is required in the deposited weld metal.

APPLICATIONS: Select 81-A1 is well-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.

DIAMETERS: 1/16", 3/32"

SHIELDING GAS: 100% CO₂, 35-50 cfh

WELDING POSITIONS: Flat and Horizontal



CHARACTERISTICS:

- Spray-like arc transfer with very low spatter.
- Exhibits minimum of convexity.
- Complete slag coverage with easy detachment.

TYPICAL MECHANICAL PROPERTIES:

	SR 1 Hr. at 1150° F
Ultimate Tensile Strength (psi)	90,300
Yield Strength (psi)	79,600
Percent Elongation	24.5

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	Mn	Mo	P	S	Si
	.03	.65	.58	.012	.015	.45

Select 810-A1

CLASSIFICATIONS: E81T1-A1 per AWS A5.29, ASME SFA 5.29

A low alloy steel electrode for flux cored arc welding. Select 810-A1 is intended for single and multiple pass welding, in all positions, of certain carbon-molybdenum steels where the addition of 1/2% of molybdenum is required in the deposited weld metal.

APPLICATIONS: Select 810-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.

DIAMETERS: .045", .052", 1/16"

SHIELDING GAS: 100% CO₂, 35-50 cfh

WELDING POSITIONS: All positions



CHARACTERISTICS:

- Quick freezing slag facilitates all position welding.
- Excellent fluxing action.
- Increased productivity – up to 3 times the deposition rate of covered electrodes – up to 2 times that of solid wire.

TYPICAL MECHANICAL PROPERTIES:

	SR 1 Hr. at 1150° F
Ultimate Tensile Strength (psi)	93,300
Yield Strength (psi)	84,600
Percent Elongation	23.5

TYPICAL DEPOSIT COMPOSITION:

Wt%	C	Mn	Si	P	S	Mo
	.03	.97	.35	.014	.018	.53