



FLUX AND METAL CORED WIRES

For Mild Steel

USA E70C-3C AWS AS.18 CLASSES E70C-3C/3M

DESCRIPTION

USA E70C-3C is a metal cored gas-shielded wire for single and multi-pass flat and horizontal fillet welds on mild steels used for field construction, erection and fabrication of heavy equipment, construction machinery, and general mild steel fabrication. USA E70C-3C is noted for its smooth, stable arc, nearly free from slag coverage, virtually free of spatter, reduced clean-up lime and excellent weld bead appearance. USA E70C-3C is also qualified to AWS specs E70C-3C and can be used with Argon rich mixed gases with CO₂. This wire can also be used out-of-position with the Pulsed MIG Process.

TYPICAL APPLICATIONS:

USA E70C-3C is used extensively in the fabrication, erection and repair of heavy structural fabrication of mild steels. It is used in applications where better wetting action than solid wire is required on heavier plate where cold-laps may be a concern. It has lower fume levels and higher deposit efficiency than most flux-cored wires. USA E70C-3C provides excellent mechanical properties on heavier plate thicknesses. USA E70C-3C is noted for its smooth arc and minimum spatter. The virtually slag-free deposits reduce clean-up time and the weld deposit efficiency of nearly 96% provides greater productivity than solid wire. When used for horizontal fillet joints the weld bead has equal leg lengths, flat faced fillets with fine ripples.

TYPICAL WELD METAL CHEMISTRY (% - tested with 100% CO₂)

| | |
|----|-------|
| C | 0.04 |
| Mn | 1.5 |
| Si | 0.54 |
| P | 0.014 |
| S | 0.011 |

TYPICAL MECHANICAL PROPERTIES OF WELD DEPOSIT (As welded - tested with 100% CO₂ Shield Gas)

| | |
|------------------------|---|
| Yield Point (psi) | 74,000 psi |
| Tensile Strength (psi) | 80,000 psi |
| % Elongation in 2" | 29% |
| Charpy V-Notch Impact | 94J (69 Ft.Lbs. at 0°C) 56J (41 Ft. Lbs. at -18°C) |

AVAILABLE SIZES AND RECOMMENDED CURRENTS (DCEP)

Reverse Polarity - 100% CO₂ Shield Gas

| SIZE Diameter (in.) | FLAT | HORIZ.FILLET |
|---------------------|---------|--------------|
| .045" | 200-400 | 200-400 |
| .063" (1/16") | 300-500 | 300-500 |

A wire stick-out of 5/8" to 1" should be used.

PACKAGING:

.045"x10 Lb., 33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
.063"x10 Lb., 33 Lb., 44 Lb. Spool, 60 Lb. Coil. 500 Lb. PP*

*Pail-Pac Drum

CROSS-REFERENCE TO COMPETITIVE METAL-CORED WIRES

ESAB CORE WELD 70, 71
LINCOLN OUTERSHIELD MC710XL
HOBART - NA
TRI-MARK METALLOY 70X

USA E70C-6M AWS A5.18 CLASS E70C-6M

DESCRIPTION

USA E70C-6M is a metal cored gas-shielded wire for single and multi-pass flat and horizontal fillet welds on mild steels used for construction, erection and fabrication of heavy equipment, construction machinery, and general mild steel fabrication. USA E70C-6M is noted for its smooth, stable arc, nearly free from slag coverage, virtually free of spatter, reduced clean-up time and excellent weld bead appearance. USA E70C-6M is designed to be used with argon rich mixed gases with CO₂. This wire can also be used out-of-position with the Pulsed MIG Process using sizes 1/16" and under.

TYPICAL APPLICATIONS:

USA E70C-6M is used extensively in the fabrication, erection and repair of heavy structural fabrication of mild steels. It is often used in robotic applications where slag removal between passes is not practical. It has lower fume levels and higher deposit efficiency than most flux-cored or solid wires. USA E70C-6M provides excellent mechanical properties on heavier plate thickness of plate having tensile strengths up to 70,000 psi. USA E70C-6M is noted for its smooth arc, minimum spatter, and virtually slag-free deposits. Reduced clean-up time and the weld deposit efficiency of nearly 98% provides greater productivity than solid wire. When used for horizontal fillet joints the weld bead has equal leg lengths, flat faced fillets with fine ripples.

TYPICAL WELD METAL CHEMISTRY %

| | |
|----|-------|
| C | 0.04 |
| Mn | 1.55 |
| Si | 0.54 |
| P | 0.014 |
| S | 0.011 |

TYPICAL MECHANICAL PROPERTIES OF WELD DEPOSIT

(As welded - tested with 80% Argon and 20% CO₂ Shield Gas)

| | |
|------------------------|---------------------------|
| Yield Point (psi) | 77,000 psi |
| Tensile Strength (psi) | 89,000 psi |
| % Elongation in 2" | 27% |
| Charpy V-Notch | 40J (29 Ft.Lbs. at -29°C) |

AVAILABLE SIZES AND RECOMMENDED CURRENTS (DCEP)

Reverse Polarity - 80% Argon and 20% CO₂ Shield Gas

| SIZE Diameter (in.) | FLAT | HORIZ.FILLET |
|---------------------|---------|--------------|
| .045" | 160-350 | 180-360 |
| .063" (1/16") | 220-450 | 280-450 |

A wire stick-out of 5/8" to 1" should be used.

PACKAGING:

.045"x10 Lb., 33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
.063"x10 Lb., 33 Lb., 44 Lb. Spool, 60 Lb. Coil. 500 Lb. PP*

*Pail-Pac Drum

CROSS-REFERENCE TO COMPETITIVE METAL-CORED WIRES

ESAB CORE WELD ULTRA, COREWELD 70
LINCOLN OUTERSHIELD MC710
HOBART N/A
TRI-MARK METALLOY 70, METALLOY 71

USA E70T-1 AWS A5.20 CLASSES E70T-1C/E70T-1M

DESCRIPTION

USA E70T-1 is a flux cored wire for single or multi-pass welds on mild steels and certain low alloy steels. USA E70T-1 is noted for its low spatter generation, high disposition rate and ease of slag removal when used for flat and fillet welds of medium and heavy thickness plates. It has been designed to be used with 100% CO₂ or 75-80% Argon + balance CO₂ mixed shield gas.

TYPICAL APPLICATIONS:

USA E70T-1 is used extensively in the fabrication of bridge structures, pressure vessels, earth moving equipment, general construction, shipbuilding and whenever welds are required to meet structural and nuclear codes.

TYPICAL WELD METAL CHEMISTRY (% - tested with 100% CO₂ Shield Gas)

| | |
|----|-------|
| C | 0.03 |
| Mn | 1.45 |
| Si | 0.50 |
| P | 0.014 |
| S | 0.013 |

TYPICAL MECHANICAL PROPERTIES OF WELD DEPOSIT

(As welded - tested with 100% CO₂ Shield Gas)

| | |
|------------------------|---------------------------|
| Yield Point (psi) | 78,000 psi |
| Tensile Strength (psi) | 82,500 psi |
| % Elongation in 2" | 25% |
| Charpy V-Notch Impact | 50J (37 Ft.Lbs. at -18°C) |

AVAILABLE SIZES AND RECOMMENDED CURRENTS (DCEP)

Reverse Polarity - 100% CO₂ Shield Gas

| SIZE Diameter (in.) | FLAT | HORIZ.FILLET |
|---------------------|---------|--------------|
| .045" | 200-400 | 210-400 |
| .063" (1/16") | 300-500 | 300-500 |

A wire stick-out of 5/8" to 1" should be used.

PACKAGING:

.045"x10 Lb., 33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
.063"x10 Lb., 33 Lb., 44 Lb. Spool, 60 Lb. Coil. 500 Lb. PP*

*Pail-Pac Drum

CROSS-REFERENCE TO COMPETITIVE METAL-CORED WIRES

ESAB CORE WELD 70, 71
LINCOLN OUTERSHIELD MC710XL
HOBART - NA
TRI-MARK METALLOY 70X

FLUX AND METAL CORED WIRES

For Mild Steel

USA E70T - 1 EXTRA AWS A5.20 CLASSES E70T-1C/E70T-1M

DESCRIPTION

USA E70T-1 EXTRA is a basic slag formulation flux cored wire for single or multi-pass welds on mild steels and 490N/mm² (71,000 psi) class high strength steels. USA E70T-1 EXTRA is noted for its high deposition properties. USA E70T-1 EXTRA also provides excellent arc stability at higher current levels. It provides low spatter, excellent bead appearance and ease of slag removal. USA E70T-1 EXTRA also meets the requirements of AWS E70T-1M. It has been designed to provide excellent feed ability when used for larger fillet leg welds of heavy thickness plates using 100% CO₂ or Argon-CO₂ mixed shield gas.

TYPICAL APPLICATIONS:

USA E70T-1 EXTRA is used extensively in the fabrication of bridge structures, pressure vessels, earth moving equipment, general construction, and shipbuilding. USA E70T-1 EXTRA is ideal for heavy thickness mild steel fabrication.

TYPICAL WELD METAL CHEMISTRY (% - tested with 100% CO₂ Shield Gas)

| | |
|----|-------|
| C | 0.04 |
| Mn | 1.25 |
| Si | 0.41 |
| P | 0.014 |
| S | 0.011 |

TYPICAL MECHANICAL PROPERTIES OF WELD DEPOSIT (As welded - tested with 100% CO₂ Shield Gas)

| | |
|------------------------|---------------------------|
| Yield Point (psi) | 78,000 psi |
| Tensile Strength (psi) | 82,000 psi |
| % Elongation in 2" | 29% |
| Charpy V-Notch Impact | 50J (37 Ft.Lbs. at -18°C) |

AVAILABLE SIZES AND RECOMMENDED CURRENTS (DCEP)

Reverse Polarity - 100%CO₂ Shield Gas

| SIZE | FLAT | HORIZ. FILLETS |
|----------------|---------|----------------|
| Diameter (in.) | | |
| .045" | 200-400 | 200-400 |
| .063" (1/16") | 300-500 | 300-500 |

A wire stick-out of 5/8" to 1" should be used.

PACKAGING:

.045"x33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
.063"x33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
*Pail-Pac Drum

CROSS-REFERENCE TO COMPETITIVE WIRES

ESAB DUAL SHIELD 70
LINCOLN OUTERSHIELD 70
HOBART FABCO TR70
TRI-MARK TM-11, TM-72

USA E70T-5M AWS A5.20 CLASSES E70T-5M/E71T-5MJ

DESCRIPTION

USA E70T-5M is a basic slag formulation flux cored wire for single or multi-pass welds on mild steels and 490N/mm² (71,000 psi) class high strength steels. USA E70T-5M is noted for its low temperature properties and excellent crack resistance. USA E70T-5M also provides low spatter, excellent bead appearance and ease of slag removal. USA E70T-5M also meets the requirements of AWS E71T-5 and E71T-5MJ. It has been designed to provide excellent feed ability when used for all position welds of light, medium and heavy thickness plates using 80% Argon + balance CO₂ mixed shield gas. The deposit weld metal analysis is similar to an E7018 or E7018-1 Low Hydrogen Electrode.

TYPICAL APPLICATIONS:

USA E70T-5M is used extensively in the fabrication of bridge structures, pressure vessels, earth moving equipment, general construction and ship- building. USA E70T-5M is ideal for medium to heavy thickness mild steel fabrication when crack resistance and superior toughness are required. USA E70T-5M is often used for joining mild steel to low alloy quenched and tempered high strength steels.

TYPICAL WELD METAL CHEMISTRY % (% - tested with 80% Ar + bal. CO₂ Shield Gas)

| | |
|----|-------|
| C | 0.04 |
| Mn | 1.30 |
| Si | 0.34 |
| P | 0.015 |
| S | 0.013 |

TYPICAL MECHANICAL PROPERTIES OF WELD DEPOSIT (As welded - tested with 80% Ar + bal. CO₂ Shield Gas)

| | |
|------------------------|---------------------------|
| Yield Point (psi) | 71,000 psi |
| Tensile Strength (psi) | 80,000 psi |
| % Elongation in 2" | 29% |
| Charpy V-Notch Impact | 50J (37 Ft.Lbs. at -29°C) |

AVAILABLE SIZES AND RECOMMENDED CURRENTS (DCEP)

Reverse Polarity - 100% CO₂ Shield Gas

| SIZE | FLAT | HORIZ. FILLETS |
|----------------|---------|----------------|
| Diameter (in.) | | |
| .045" | 200-400 | 200-400 |
| .063" (1/16") | 300-500 | 300-500 |

A wire stick-out of 5/8" to 1" should be used.

PACKAGING:

.045"x33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
.063"x33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
*Pail-Pac Drum

CROSS-REFERENCE TO COMPETITIVE WIRES

ESAB DUAL SHIELD T-5
LINCOLN OUTERSHIELD 75H
HOBART FABCO 85
TRI-MARK TM-55

USA E71T-1 AWS A5.20 CLASS E71T-1C/E71T-1M

DESCRIPTION

USA E71T-1 is a special formulation flux cored wire for single or multi-pass all position welds on mild steels and 490N/mm² (71,000 psi) class high strength steels. USA E71T-1 is noted for its low spatter, smooth arc and ease of slag removal. USA E71T-1 has been designed to provide excellent feed ability when used for all position welds of light, medium and heavy thickness plates using 75-80% Arbon + balance CO₂ mixed shield gas.

TYPICAL APPLICATIONS:

USA E71T-1 is used extensively in the fabrication of bridge structures, pressure vessels, earth moving equipment, general construction, shipbuilding and whenever welds are required to meet structural and nuclear codes.

TYPICAL WELD METAL CHEMISTRY (% - tested with 100% CO₂ Shield Gas)

| | |
|----|-------|
| C | 0.03 |
| Mn | 1.45 |
| Si | 0.30 |
| P | 0.015 |
| S | 0.010 |

TYPICAL MECHANICAL PROPERTIES OF WELD DEPOSIT

(As welded - tested with 100% CO₂ Shield Gas)

| | |
|------------------------|---------------------------|
| Yield Point (psi) | 72,000 psi |
| Tensile Strength (psi) | 75,000 psi |
| % Elongation in 2" | 28% |
| Charpy V-Notch Impact | 75J (55 Ft.Lbs. at -18°C) |

AVAILABLE SIZES AND RECOMMENDED CURRENTS (DCEP)

Reverse Polarity - 100% CO₂ Shield Gas

| SIZE | FLAT | HORIZ. FILLETS | HORIZ. FILLETS |
|----------------|---------|----------------|----------------|
| Diameter (in.) | | | |
| .045" | 120-300 | 120-300 | 120-250 |
| .063" (1/16") | 200-450 | 200-400 | 180-220 |

A wire stick-out of 5/8" to 1" should be used.

PACKAGING:

.045"x33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
.063"x33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
*Pail-Pac Drum

CROSS-REFERENCE TO COMPETITIVE WIRES

ESAB DUAL SHIELD II-71 ULTRA
LINCOLN OUTERSHIELD 1M-H
HOBART XL-550, EXCEL ARC 71
TRI-MARK TRIPLE 7, TM-711M, 771, 772



FLUX AND METAL CORED WIRES

For Mild Steel

USA E71T-1 LF AWS A5.20 CLASSES E 71T-1C/E71T-1M

DESCRIPTION

USA E71T-1 LF is a special formulation flux cored wire for single or multi-pass all position welds on mild steels and 490N/mm² (71,000 psi) class high strength steels. USA E71T-1 LF is noted for its low fume generation, low spatter, and ease of slag removal. USA E71T-1 LF has been designed to provide excellent feed ability when used for all position welds of light, medium and heavy thickness plates using 100% CO₂ or 75-80% Ar + balance CO₂ shield gas.

TYPICAL APPLICATIONS:

USA E71T-1 is used extensively in the fabrication of bridge structures, pressure vessels, earth moving equipment, general construction, shipbuilding and whenever welds are required to meet structural and nuclear codes.

TYPICAL WELD METAL CHEMISTRY

(% - tested with 100% CO₂ Shield Gas)

| | |
|----|-------|
| C | 0.03 |
| Mn | 1.45 |
| Si | 0.30 |
| P | 0.015 |
| S | 0.010 |

TYPICAL MECHANICAL PROPERTIES OF WELD DEPOSIT

(As welded - tested with 100% CO₂ Shield Gas)

| | |
|------------------------|---------------------------|
| Yield Point (psi) | 74,000 psi |
| Tensile Strength (psi) | 80,000 psi |
| % Elongation in 2" | 28% |
| Charpy V-Notch Impact | 60J (44 Ft.Lbs. at -18°C) |

AVAILABLE SIZES AND RECOMMENDED CURRENTS (DCEP)

Reverse Polarity - 100%CO₂ Shield Gas

| SIZE Diameter (in.) | FLAT | HORIZ. FILLETS | VERT. |
|------------------------|---------|-------------------|---------|
| .045" | 120-300 | 120-300 | 120-250 |
| .063" (1/16") | 200-450 | 200-400 | 180-220 |

A wire stick-out of 5/8" to 1" should be used.

PACKAGING:

.045"x33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
.063"x33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
*Pail-Pac Drum

CROSS-REFERENCE TO COMPETITIVE WIRES

ESAB DUAL CORE WELD 70, 71
LINCOLN OUTERSHIELD 70, 70-h, HD70
HOBART FABCO 81, 90, RXR, 86
TRI-MARK TM-11, TM1 HE, TM 72, TMEX7

USA E71T-1M AWS A5.20 CLASSES E 71T-1C/E71T-1M

DESCRIPTION

USA E71T-1M is a special formulation flux cored wire for single or multi-pass welds on mild steels and 490N/mm² class (71,000 psi) high strength steels. USA E71T-1M is noted for its low spatter, smooth arc and ease of slag removal. USA E71T- 1M has been designed to provide excellent feed ability when used for all position welds of light, medium and heavy thickness plates using 100% CO₂ or 75-80% Argon + balance CO₂ mixed shield gas.

TYPICAL APPLICATIONS:

USA E71T-1M is used extensively in the fabrication of bridge structures, pressure vessels, earth moving equipment, general construction, shipbuilding and whenever welds are required to meet structural and nuclear codes.

TYPICAL WELD METAL CHEMISTRY

(% - tested with 100% CO₂ Shield Gas)

| | |
|----|-------|
| C | 0.03 |
| Mn | 1.45 |
| Si | 0.30 |
| P | 0.015 |
| S | 0.010 |

TYPICAL MECHANICAL PROPERTIES OF WELD DEPOSIT

(As welded - tested with 100% CO₂ Shield Gas)

| | |
|------------------------|---------------------------|
| Yield Point (psi) | 72,000 psi |
| Tensile Strength (psi) | 80,000 psi |
| % Elongation in 2" | 28% |
| Charpy V-Notch Impact | 75J (55 Ft.Lbs. at -18°C) |

AVAILABLE SIZES AND RECOMMENDED CURRENTS (DCEP)

Reverse Polarity - 100% CO₂ Shield Gas

| SIZE Diameter (in.) | FLAT | HORIZ. FILLETS | VERT. |
|------------------------|---------|-------------------|---------|
| .045" | 120-300 | 120-300 | 120-250 |
| .063" (1/16") | 200-450 | 200-400 | 180-220 |

A wire stick-out of 5/8" to 1" should be used.

PACKAGING:

.045"x33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
.063"x33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
*Pail-Pac Drum

CROSS-REFERENCE TO COMPETITIVE WIRES

ESAB DUAL SHIELD 7000, 7100.1170, 1171, 1170T-12
LINCOLN OUTERSHIELD 71, 71M, 71M-H, 712C, 71HYC
HOBART FABCO 802, 825. XL-525
TRI-MARK TM71, 71-M, 711, 711M, 771, RX71

USA E71T-GS AWS A5.20 CLASS E 71T-GS

DESCRIPTION

USA E71T-GS is self-shielding flux cored wire for single pass all-position welds on mild steels used for field construction, erection and repair. It is often used for fabrication of mild steel sheet metal where secondary shielding gas is not practical. USA E71T-GS is used to weld mild steels and it finds acceptance for use in fabrication and repair welds on thin mild steel and galvanized steel. USA E71T- GS is noted for its smooth, stable arc, full slag coverage, low spatter generation, ease of slag removal and excellent weld bead appearance. It has relatively light penetration and tolerates rust, dirt, and oil on the work piece. The weld deposit resembles that of E6011 Electrodes.

TYPICAL APPLICATIONS:

USA E71T-GS is used extensively in maintenance for the fabrication, erection and repair of mild steel sheetmetal and is used in applications where secondary shield gas is not practical. The weld deposits are smooth and have light penetration helping to eliminate burn-throughs. The use of USA E71T-GS should be limited to non-structural applications only. USA E71T-GS is noted for its smooth arc and low spatter.

TYPICAL WELD METAL CHEMISTRY

(% - tested with 100% CO₂ Shield Gas)

| | |
|----|-------|
| C | 0.16 |
| Mn | 0.82 |
| Si | 0.31 |
| Al | 1.3 |
| P | 0.014 |
| S | 0.005 |

TYPICAL MECHANICAL PROPERTIES OF WELD DEPOSIT

(As welded)

| | |
|-------------------------------|------------|
| Traverse Tension Test | 75,000 psi |
| Longitudinal Guided Bend Test | No Defects |
| % Elongation in 2" | 22% |

AVAILABLE SIZES AND RECOMMENDED CURRENTS (DCEP)

Reverse Polarity

| SIZE Diameter (in.) | FLAT | HORIZ. FILLETS | VERT. |
|------------------------|---------|-------------------|---------|
| .035" | 60-180 | 60-180 | 50-140 |
| .045" | 80-200 | 80-200 | 80-160 |
| .063" (1/16") | 160-270 | 160-270 | 120-220 |

A wire stick-out of 5/8" to 1" should be used.

PACKAGING:

.035"x10 Lb., 33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
.045"x10 Lb., 33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
.063"x10 Lb., 33 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
*Pail-Pac Drum

CROSS-REFERENCE TO COMPETITIVE WIRES

ESAB CORE SHIELD 15
LINCOLN INNERSHIELD NR151, NR 152
HOBART FABSHIELD 23
TRI-MARK TM-123

FLUX AND METAL CORED WIRES

For Mild Steel

USA E71T-11 AWS A5.20 CLASSES E 71T-11

DESCRIPTION

USA E71T-11 is a self-shielding flux cored wire for single or limited multi-pass all-position welds on mild steels used for field construction, erection and fabrication of bridges and shipbuilding where secondary shielding gas is not practical. USA E71T-11 is used to weld mild steels and it finds acceptance for use in construction, bridges, structural fabrication, and ship building. USA E71T-11 is noted for its smooth, stable arc, full slag coverage, low spatter generation, ease of slag removal and excellent weld bead appearance.

TYPICAL APPLICATIONS:

USA E71T-11 is used extensively in the fabrication, erection and repair of structural fabrication of mild steels used in applications where secondary shield gas is not practical. The weld deposits are smooth and have good penetration. The use of USA E71T-11 should be designated for multi-pass welds on plate up to 3/8" (9.5mm) only. Welds above this thickness should not be contemplated, as the weld deposit chemistry does not maintain its mechanical properties when used for more than three passes. USA E71T-11 is noted for its smooth arc and minimum spatter. When used for horizontal fillet joints the weld bead has equal leg lengths, flat-faced fillets with fine ripples.

TYPICAL WELD METAL CHEMISTRY (%)

| | |
|----|-------|
| C | 0.10 |
| Mn | 1.55 |
| Si | 0.10 |
| Al | 1.2 |
| P | 0.016 |
| S | 0.006 |

TYPICAL MECHANICAL PROPERTIES OF WELD DEPOSIT

(As welded)

| | |
|------------------------|------------|
| Yield Point (psi) | 72,000 psi |
| Tensile Strength (psi) | 77,000 psi |
| % Elongation in 2" | 22% |

AVAILABLE SIZES AND RECOMMENDED CURRENTS (DCEP)

Reverse Polarity

| SIZE Diameter (in.) | FLAT | HORIZ. FILLET | VERT. |
|------------------------|---------|------------------|---------|
| .035" | 60-180 | 60-180 | 50-140 |
| .045" | 80-200 | 80-200 | 80-160 |
| .063" (1/16") | 160-270 | 160-270 | 120-220 |

A wire stick-out of 5/8" to 1" should be used.

PACKAGING:

.035"x10 Lb., 33 Lb., 44 Lb. Spool 60 Lb. Coil, 500 Lb. PP*
.045"x10 Lb., 33 Lb., 44 Lb. Spool 60 Lb. Coil, 500 Lb. PP*
.063"x10 Lb., 33 Lb., 44 Lb. Spool 60 Lb. Coil, 500 Lb. PP*
*Pail-Pac Drum

CROSS-REFERENCE TO COMPETITIVE WIRES

ESAB CORESHIELD 11
LINCOLN INNERSHIELD NR211 MP
HOBART FABSHIELD 21B
TRI-MARK TM-121

USA E71T-W AWS A5.29 CLASS E 71T-W

DESCRIPTION

USA E71T1-W is a titania slag formulation flux cored wire for single or multi-pass all-position welds on high tensile strength weathering steels and used for field construction, erection and fabrication of bridges and shipbuilding where post-weld painting is not done. USA E71T1-W is used to weld ASTM A588 and A242 grade weathering steels. It finds acceptance for use in construction, bridges, structural fabrication, offshore oil rig fabrication and shipbuilding. USA E71T1-W is noted for its smooth, stable arc, low spatter generation, ease of slag removal and excellent weld bead appearance. The shield gas can be either 100% CO₂ or 75% Argon + 25% CO₂.

TYPICAL APPLICATIONS:

USA E71T1-W is used extensively in the fabrication, erection and repair of structural fabrication of higher strength low alloy weathering steels used in unpainted post weld service. The weld deposits are smooth and have deep penetration. USA 71T1-W is noted for its smooth arc and minimum spatter. When used for horizontal fillet joints the weld bead has equal leg lengths, flat faced fillets with fine ripples.

TYPICAL WELD METAL CHEMISTRY (% - tested with 100% CO₂ Shield Gas)

| | |
|----|-------|
| C | 0.05 |
| Mn | 1.25 |
| Si | 0.54 |
| Ni | 0.45 |
| Cr | 0.55 |
| Cu | 0.42 |
| P | 0.013 |
| S | 0.010 |

TYPICAL MECHANICAL PROPERTIES OF WELD DEPOSIT

(As welded - tested with 100% CO₂ Shield Gas)

| | |
|------------------------|---------------------------|
| Yield Point (psi) | 75,000 psi |
| Tensile Strength (psi) | 90,000 psi |
| % Elongation in 2" | 28% |
| Charpy V-Notch Impact | 50J (37 Ft.Lbs. at -30°C) |

AVAILABLE SIZES AND RECOMMENDED CURRENTS (DCEP)

Reverse Polarity - 100% CO₂ Shield Gas

| SIZE Diameter (in.) | FLAT | HORIZ. FILLET | VERT. |
|------------------------|---------|------------------|---------|
| .045" | 120-350 | 120-320 | 120-250 |
| .063" (1/16") | 200-450 | 200-400 | 180-220 |

A wire stick-out of 5/8" to 1" should be used.

PACKAGING:

.045"x25 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
.063"x25 Lb., 44 Lb. Spool, 60 Lb. Coil, 500 Lb. PP*
*Pail-Pac Drum

CROSS-REFERENCE TO COMPETITIVE WIRES

ESAB DUAL SHIELD 88W, 8100-W
LINCOLN OUTERSHIELD
HOBART
TRI-MARK