



GAS-SHIELDED FLUX-CORED/WIRE WELDING PRODUCT GUIDE

THE TRUSTED LEADER IN CORED WIRES

Recognized worldwide as the "specialists in Cored wires," Tri-Mark features over 50 different Cored products for welding carbon and low-alloy steels, in addition to special formulations for applications in the shipbuilding, infrastructure construction, offshore oil, and heavy equipment industries, Tri-Mark's commitment to product excellence is second to none.

FLUX-CORED GAS-SHIELDED WIRES CARBON STEEL

TM-11

Features:

- Designed for semi-automatic welding of carbon steels
- Excellent welding characteristics at higher current levels than E70T-1 wires
- Slag freezes at a moderate rate
- Smooth, flat and uniformly rippled beads
- Recommended for single and multiple pass welding

Applications:

- Heavy equipment repair
- Structural components
- General fabrication

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

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: Flat and horizontal

TM-72

Features:

- Designed for semi-automatic welding of carbon steels
- Excellent arc stability over its current range
- Almost non-existent spatter
- Slag cover removes easily and cleanly - even from welds in deep grooves
- Excellent weld bead appearance
- Surfaces are smooth and uniformly rippled
- Excellent tie-in in flat and horizontal positions

Applications:

- Heavy equipment
- Structural components
- General fabrication

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

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: Flat and horizontal

TM-RX7

Features:

- Excellent arc stability over recom mended welding range
- Easy slag removal
- Excellent bead appearance
- Welds over mill scale, rust and other contaminants better than most T-1 wires
- Use caution in welding thick or highly restrained joints

Applications:

- Railcar fabrication
- Structural components

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

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: Flat and horizontal

PREMIER 70

Features:

- Designed to weld over steel coated with weldable primers
- No porosity when welding over a maximum 1.0 mills of Nippe Ceramo-937 and 997 primers
- Minimal spatter
- Easy slag removal

Applications:

- Shipbuilding
- Barge construction
- Railcar manufacturing

Specifications: E70T-1C, E70T-9CJ H8 per AWS A5.20, ASME SFA 5.20

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: Flat and horizontal

TM-73

Features:

- Produces welds with good soundness and bead contour on steel surfaces with moderate mill scale, rust and foreign matter
- Higher deoxidizer levels than similar E70T-1 wires
- Very low spatter
- Easy and complete slag removal
- Recommended for single pass welding

Applications:

- Heavy equipment fabrication
- Railcar manufacturing

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

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: Flat and horizontal

TM-55

Features:

- Made with basic slag formulation
- Very low weld metal hydrogen levels

Applications:

- Where excellent mechanical properties are required

Specifications: E70T-5CJ H4, E70T-5MJ H4 per AWS A5.20, ASME SFA 5.20

Shielding Gas: 100% CO₂, 75-80% Ar/bal CO₂, 35-50 cfh

Welding Positions: Flat and horizontal

TRIPLE 7

Features:

- Intended for single and multiple pass welding in all positions
- Fast-freezing slag allows higher current and faster metal deposit
- Slag removes easily even from deep grooves
- Low spatter

Applications:

- Shipbuilding
- Railcar fabrication
- General plate fabrication
- Gauge sheet metal
- Pressure vessels
- Pipe weldments

Specifications: E71T-1C H8, E71T-1M H8

Shielding Gas: 100% CO₂, 75% Ar/25% CO₂, 35-50 cfh

Welding Positions: All positions

TRIPLE 8

Features:

- Higher impact values than most E71T-1 wires
- Fast-freezing slag system makes it ideal for all positions
- Low spatter level

Applications:

- Shipbuilding
- Railcar fabrication
- Heavy equipment
- Structural steel
- Pressure vessels

Specifications: E71T-1CJ, E71T-9CJ H8 per AWS A5.20, ASME SFA 5.20

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: All positions

TM-711M

Features:

- Recommended for single and multiple pass welding
- Stiff arc action for deep penetration and control
- Quick freezing slag
- Good bead contour

Applications:

- Shipbuilding and repair
- General structural and fabrication

Specifications: E71T-1C H8, E71T-1M H8 per AWS A5.20, ASME SFA 5.20

Shielding Gas: 100% CO₂, 75% Ar/25% CO₂, 35-50 cfh

Welding Positions: All positions

TM-771

Features:

- Excellent operator appeal
- Mechanical properties superior to most E71T-1 wires
- Soft and quiet arc
- Typical diffusible hydrogen levels less than 5 ml/100 g required by MIL-E-24403/1

Applications:

- Shipbuilding
- Pressure vessel fabrication
- Structural welding

Specifications: E71T-1C, E71T-12CJ H8 per AWS A5.20, ASME SFA 5.20

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: All positions

TM-770

Features:

- Exceptional operator appeal
- Soft and stable arc
- Low fume level
- Virtually no spatter
- Flat bead profile

Applications:

- Shipbuilding
- Offshore structures
- General fabrication

Specifications: E71T-1M, E71T-12MJ H8 per AWS A5.20, ASME SFA 5.20

Shielding Gas: 75-80% Ar/bal CO₂, 35-50 cfh

Welding Positions: All positions

TM-910

Features:

- Designed for use with high Argon shielding gas
- Suited for high heat input/slow cooling rate, low heat input/high cooling rate
- Blends superior welding performance with outstanding mechanical properties

Applications:

- High Argon
- Petro-chemicals
- Structural components
- Previous solid wire accounts

Specifications: E71T-1M, E71T-12MJ per AWS A5.20, ASME SFA 5.20

Shielding Gas: 75-95% Ar/bal CO₂, 35-50 cfh

Welding Positions: All positions

FLUX-CORED GAS-SHIELDED WIRES LOW ALLOY

TM-811A1

Features:

- Deposits weld metal with 1/2% molybdenum to prevent tensile stress deterioration
- Used for repair and fabrication of 1/2% molybdenum steel castings

Applications:

- Power plants
- 1/2% molybdenum steel castings

Specifications: E81T1-A1C per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: All positions

TM-81B2

Features:

- Used for weld metals with high tensile strengths subject to high service temperatures and required creep resistance
- Excellent replacement for E8018-B2 electrodes

Applications:

- Cr-Mo Steels
- Heavy Equipment

Specifications: E80T1-B2C, E80T1-B2M per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 75% Ar/25% CO₂, 35-50 cfh

Welding Positions: All positions

TM-811B2

Features:

- Deposits weld metal similar to 1-1/4 Cr/1/2 Mo steels
- Used to weld steels with high tensile strengths subject to high service temperatures
- Excellent replacement for E8018-B2 electrodes

Applications:

- Cr-Mo Steels
- Heavy Equipment

Specifications: E81 8PT1-B2C H4, E81T1-B2M H4 per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 75% Ar/25% CO₂, 35-50 cfh

Welding Positions: All positions

TM-91B3

Features:

- Used for 2-1/4 Cr/1 Mo steels
- Weld contents match base metal chromium and molybdenum levels
- High temperature creep resistance; some oxidation resistance

Applications:

- Steam & chemical piping
- 2 1/4 Cr/1Mo castings

Specifications: E90T 1-B3C, E90T1-B3M per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 75% Ar/25% CO₂, 35-50 cfh

Welding Positions: Flat and horizontal

TM-911B3

Features:

- Provides 2 1/2% chromium/1% molybdenum steel weld metal
- Excellent welder appeal
- Recommended for 2 1/2% chromium/1% molybdenum steel, specifically ASTM A387, Grades 21 and 22

Applications:

- Steam & chemical piping
- 2 1/2 Cr-1Mo castings

Specifications: E91T1-B3C H4, E91T1-B3M H4 per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 80% Ar/20% CO₂, 35-50 cfh

Welding Positions: All positions

TM-81N1

Features:

- Comparable to E8018-C3 covered electrodes in deposit composition and properties
- Diffusible hydrogen levels rival basic slag wires

Applications:

- Petro-chemicals
- Earthmoving equipment
- Low temperature impact value fabrication

Specifications: E80T1-N1C H8, E80T1-N1M H8 per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 75% Ar/25% CO₂, 35-50 cfh

Welding Positions: All positions

TM-811N1

Features:

- Comparable to E8018-C3 covered electrodes in deposit composition and properties
- Excellent arc stability
- Low spatter
- Fast-freezing slag facilitates all position welding
- Easy slag removal

Applications:

- Petro-chemicals
- Mining
- Earthmoving equipment
- General fabrication

Specifications: E81T1-N1CJ H8, E81T1-N1MJ H8 per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 75% Ar/25% CO₂, 35-50 cfh

Welding Positions: All positions

TM-811N2

Features:

- Excellent arc stability
- Low spatter
- Low diffusible hydrogen levels
- Good impact values
- Excellent choice for weathering steels where color match is not required

Applications:

- Off-shore drilling rigs
- Shipbuilding
- HSLA steels

Specifications: E81T1-Ni2C H8, E81T1-Ni2M H8 per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 75-80% Ar/bal CO₂, 35-50 cfh

Welding Positions: All positions

TM-911N2

Features:

- Alloyed with more than 2% nickel to combine tensile strength in the 90,000/110,000 psi range
- Good impact values at -40F

Applications:

- Heavy construction
- ASTM A 203 Grades A & B

Specifications: E91T1-Ni2C per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: All positions

TM-105D2

Features:

- Good low temperature impact toughness with minimum 100,000 psi tensile strength
- Basic slag minimizes hydrogen induced crack sensitivity
- Molybdenum in the weld deposit helps prevent tensile strength deterioration during long-term stress relieving
- Suited for manganese-moly castings repair
- Used for components undergoing post-weld heat treatment and maintaining tensile strength of about 100,000 psi.

Applications:

- High tensile
- Heavy equipment
- Mn/Mo castings

Specifications: E100T5-D2C per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 75% Ar/25% CO₂, 35-50 cfh

Welding Positions: Flat and horizontal

TM-881K2

Features:

- Outstanding impact resistance at low temperatures
- Stable soft spray transfer
- Almost no spatter
- 100% CO₂ gas shielding may be used with some sacrifice in fume, spatter and impact resistance

Applications:

- Off-shore oil rigs
- Shipbuilding

Specifications: E81T1-K2CJ H8, E81T1-K2MJ H8 per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 75-85% Ar/bal CO₂, 35-50 cfh

Welding Positions: All positions

TM-91K2

Features:

- Good weldability
- Excellent properties for semi-automatic and automatic welding of higher strength steels
- Low diffusible hydrogen content compared to EXOT-1 wire deposits
- Excellent choice for fillet welds on T-1, HY-80 and other quenched and tempered steels

Applications:

- T-1/ASTM A514 steels

Specifications: E90T1-K2C per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: Flat and Horizontal

TM-991K2

Features:

- Good low temperature toughness
- High tensile strength in 90,000 to 110,000 psi range
- Smooth, stable arc action
- Quick freezing slag for easy removal
- Excellent choice for fillet welds on T-1, HY-80 and other quenched and tempered steels

Applications:

- Welding of high strength, low alloy steels

Specifications: E91T1-K2C H8, E91T1-K2M H8 per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 75% Ar/25% CO₂, 35-50 cfh

Welding Positions: Flat and horizontal

TM-95K2

Features:

- Excellent where higher tensile strengths and impact properties are important
- Produced with basic slag formula tion for superior deposit quality
- Low in diffusible hydrogen
- Excellent for applications prone to cracking
- Suited where good impact values down to -60°F are needed

Applications:

- Welding of A514, A710, HY-80 steels

Specifications: E90T5-K2CH4 per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 75-80% Ar/bal CO₂, 35-50 cfh

Welding Positions: Flat and horizontal

TM-101

Features:

- Superior impact toughness combined with tensile strength in the range of 105,000-115,000 psi
- Ideal for welding steels such as A514 (T1), A710, RIVERS A 610, Welden 610, EQ56, and other HSLA or Q&T grades
- Excellent all-position performance
- Low spatter
- Low diffusible hydrogen

Specifications: E101T1-1GM per AWS A5.29, ASME SFA 5.29

Shielding Gas: 75% Ar/25% CO₂, 35-50 cfh

Welding Positions: All positions

TM-101K3

Features:

- Provides 100,000 psi tensile strength with good impact values
- Low diffusible hydrogen levels
- Resistant to hydrogen-induced cracking

Applications:

- Offshore
- HSLA and quenched and tempered steels

Specifications: E100T1-K3C per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: Flat and horizontal

TM-111K3

Features:

- Used where minimum tensile strength of 110,000 psi is required
- Ideal for quench and tempered low alloy steels, i.e. ASTM A514
- Low diffusible hydrogen levels

Applications:

- Offshore

Specifications: E110T1-K3C per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: Flat and horizontal

TM-1101K3-C

Features:

- Excellent arc stability
- Low spatter with CO₂ shielding gas
- Fast-freezing slag for all position welding
- Low diffusible hydrogen levels
- Excellent slag removal
- Good impact values and high strength levels

Applications:

- Offshore

Specifications: E111T1-K3CJ H8 per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: All positions

TM-1101K3-M

Features:

- Excellent arc stability
- Low spatter
- Low diffusible hydrogen levels
- Excellent slag removal
- Good impact values
- High strength levels

Applications:

- Higher strength steels
- Offshore

Specifications: E111T1-K3MJ H8 per AWS A5.29, ASME SFA 5.29

Shielding Gas: 75-80% Ar/bal CO₂, 35-50 cfh

Welding Positions: All positions

TM-115

Features:

- Designed for high strength, low alloy steels
- Used for quenched and tempered steels requiring high quality welds
- Welds combine 110,000 -130,000 psi tensile strength range with low temperature toughness
- Weld metal low in hydrogen
- Highly resistant to cracking

Applications:

- A514, A517 and similar strength low alloy steels

Specifications: E110T5-K3M H4 per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 75% Ar/25% CO₂, 35-50 cfh

Welding Positions: Flat and horizontal

TM-125K4

Features:

- Designed for high strength steels, including quenched and tempered low alloy grades
- Good impact values at low temperatures
- Slag formulation promotes resistance to weld cracking
- Low diffusible hydrogen levels

Applications:

- Casting repair
- High tensile steels

Specifications: E120T5-K4C H4 per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: Flat and horizontal

TM-811W

Features:

- Meets Structural Welding Code D1.1 filler metal requirements for: ASTM A242, A588, and A709 Grade 50W steels
- Alloyed to provide weld metal coloring match in the weathering condition
- Good properties in 80,000-100,000 psi strength range
- Good impact values

Applications:

- Weathering steels

Specifications: E81T1-W2C H8 per AWS A5.29, ASME SFA 5.29

Shielding Gas: 100% CO₂, 35-50 cfh

Welding Positions: All positions



Our knowledgeable customer service team is available to assist customers with information concerning product use, diameter sizes, packaging, and technical information. Got a question about a Tri-Mark product? Call our service team at: **1.800.424.1543** or visit: **www.hobartbrothers.com**