

# MILD STEEL WIRE



Certified by CWB  
to CSA W48-Class ER49S-6



## Specifications

AWS A5.18 Class ER70S-6

## Description

S6 contains high levels of manganese and silicon for stronger deoxidizing power where stringent cleaning procedures are not possible. This wire has been designed to provide X-ray quality porosity-free welds and the highest tensile strength (as welded) of the plain carbon steel wires. The high silicon content increases the fluidity of the weld pool, creating a smoother bead appearance and resulting in minimal post-weld grinding. S6 is excellent where poor fit-ups or rusty and oily plates may be used.

## Applications

Construction work, tanks, truck bodies, farm implements, pipes, steel castings or forgings, shaft build-ups and general shop fabrications.

| DIAMETER      | SPOOL SIZES |            |             |             |               | PACKAGING   |
|---------------|-------------|------------|-------------|-------------|---------------|---|
|               | 1KG (2.2LB) | 5KG (11LB) | 15KG (33LB) | 20KG (44LB) | 250KG (550LB) |   |
| 0.6mm (.023") | S6061       | S6065      | S60615      |             |               | 1kg spools are packaged 18 spools per master carton<br>20kg spools are packaged 60 spools (1200kg) per pallet<br>250 kg drums are packaged 2 drums (500kg) per pallet |
| 0.8mm (.030") | S6081       | S6085      |             | S60820      |               |   |
| 0.9mm (.035") | S6091       | S6095      |             | S60920      | S609250       |   |
| 1.2mm (.045") | S6121       | S6125      |             | S61220      | S612250       |   |

# MILD STEEL TIG RODS

## RG45

RG45116 ROD RG45 1/16" X 36"  
 RG4518 ROD RG45 1/8" X 36"  
 RG45316 ROD RG45 3/16" X 36"  
 RG45332 ROD RG45 3/32" X 36"

## RG60

RG60116 ROD RG60 1/16" X 36"  
 RG6018 ROD RG60 1/8" X 36"  
 RG60316 ROD RG60 3/16" X 36"  
 RG60332 ROD RG60 3/32" X 36"  
 RG60532 ROD RG60 5/32" X 36"

## ER70S-2

S2035 ROD E70S2 .035" X 36"  
 S2045 ROD E70S2 .045" X 36"  
 S2116 ROD E70S2 1/16" X 36"  
 S218 ROD E70S2 1/8" X 36"  
 S2316 ROD E70S2 3/16" X 36"  
 S2332 ROD E70S2 3/32" X 36"  
 S2532 ROD E70S2 5/32" X 36"

## ER70S-3

S3116 ROD ER70S3 1/16" X 36"  
 S318 ROD ER70S3 1/8" X 36"  
 S3332 ROD ER70S3 3/32" X 36"



## ER80S-D2

80SD2045 ROD ER80S-D2 .045" X 36"  
 80SD2116 ROD ER80S-D2 1/16" X 36"  
 80SD218 ROD ER80S-D2 1/8" X 36"  
 80SD2332 ROD ER80S-D2 3/32" X 36"

## ER80S-B2

ERSB2-045 ROD ER80S-B2 .045" X 36"  
 ERSB2-116 ROD ER80S-B2 1/16" X 36"  
 ERSB2-18 ROD ER80S-B2 1/8" X 36"  
 ERSB2-332 ROD ER80S-B2 3/32" X 36"

## ER90S-B3

ERSB3-116 ROD ER90S-B3 1/16" X 36"  
 ERSB3-18 ROD ER90S-B3 1/8" X 36"  
 ERSB3-332 ROD ER90S-B3 3/32" X 36"

## ER70S-6

S6035 ROD ER70S6 .035" X 36"  
 S6045 ROD ER70S6 .045" X 36"  
 S6116 ROD ER70S6 1/16" X 36"  
 S618 ROD ER70S6 1/8" X 36"  
 S6332 ROD ER70S6 3/32" X 36"

PACKAGING: 10# (4.5kg) Tubes, 50# (22.7kg) per carton

# STAINLESS MIG WIRE

**308L - PowerWeld 308L** is used for TIG and MIG welding of unstabilized steels such as types 301, 302, 304, 305, 308. The average carbon content of 0.02% produces a weld deposit with good resistance against intergranular corrosion caused by carbide precipitation. This filler metal is the most popular grade among stainless steels, used for general purpose applications.

**309L - PowerWeld 309L** is used for the welding of similar alloys in wrought or cast form. It is mostly used for welding dissimilar materials such as mild steel to stainless steel, as well as for a barrier layer in stainless overlays. It has low carbon content of less than 0.03% reduces the possibility of intergranular corrosion. For some applications, welding of straight chromium steels.

**316L - PowerWeld 316L** is used to weld wrought and cast forms of similar composition, as well as low carbon molybdenum-bearing austenitic alloys. The lower ferrite level of this normal composition reduces the rate of corrosion in certain media and is suitable for use at cryogenic temperatures. The presence of molybdenum increases its creep resistance at elevated temperatures.

All grades meet specification ASME SFA5.9 and are certified by CWB to AWS A5.9

| Size  | Amperage  | Voltage |
|-------|-----------|---------|
| .023" | 35 - 70   | 21 - 26 |
| .030" | 50 - 100  | 24 - 28 |
| .035" | 160 - 210 | 26 - 29 |
| .045" | 180 - 250 | 28 - 32 |

Suggested Welding Parameters for Stainless Steel Welding

**MIG Welding:** DCEP

Shielding Gas: 98% Argon + 2% Oxygen  
Gas Flow: 30 to 50 CFH



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| Diameter      | Spool Size        | 308L      | 309L      | 316L      |
|---------------|-------------------|-----------|-----------|-----------|
| .024" (0.6mm) | 2# (0.9kg) spool  | 308L02402 | 309L02402 | 316L02402 |
|               | 10# (4.5kg) spool | 308L02410 | 309L02410 | 316L02410 |
|               | 33# (15kg) spool  | 308L02433 | 309L02433 | 316L02433 |
| .030" (0.8mm) | 2# (0.9kg) spool  | 308L03002 | 309L03002 | 316L03002 |
|               | 10# (4.5kg) spool | 308L03010 | 309L03010 | 316L03010 |
|               | 33# (15kg) spool  | 308L03033 | 309L03033 | 316L03033 |
| .035" (0.9mm) | 2# (0.9kg) spool  | 308L03502 | 309L03502 | 316L03502 |
|               | 10# (4.5kg) spool | 308L03510 | 309L03510 | 316L03510 |
|               | 33# (15kg) spool  | 308L03533 | 309L03533 | 316L03533 |
| .045" (1.2mm) | 2# (0.9kg) spool  | 308L04502 | 309L04502 | 316L04502 |
|               | 10# (4.5kg) spool | 308L04510 | 309L04510 | 316L04510 |
|               | 33# (15kg) spool  | 308L04533 | 309L04533 | 316L04533 |

**PACKAGING: 2 kg (4.4 lbs) boxes, 20 kg (44 lbs) per carton**

# STAINLESS TIG WIRE

**TIG Welding:** DCEN

Shielding Gas: 100% Argon  
Gas Flow: 30 to 40 CFH



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| Size  | Amperage  | Voltage |
|-------|-----------|---------|
| .035" | 60 - 90   | 12 - 15 |
| .045" | 80 - 110  | 13 - 16 |
| 1/16" | 90 - 130  | 14 - 18 |
| 3/32" | 120 - 175 | 15 - 20 |
| 1/8"  | 150 - 220 | 15 - 20 |

| Diameter      | 308L       | 309L       | 316L       |
|---------------|------------|------------|------------|
| .035" (0.9mm) | ER308L-035 | ER309L-035 | ER316L-035 |
| .045" (1.2mm) | ER308L-045 | ER309L-045 | ER316L-045 |
| 1/16" (1.6mm) | ER308L-116 | ER309L-116 | ER316L-116 |
| 3/32" (2.4mm) | ER308L-332 | ER309L-332 | ER316L-332 |
| 1/8" (3.2mm)  | ER308L-18  | ER309L-18  | ER316L-18  |

Each TIG rod is stamped with grade for identification.

**PACKAGING: 10 pound (4.5kg) tubes**

# STAINLESS ELECTRODES



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| PRODUCT DESCRIPTION  | DIAMETER / SIZE      | ITEM #   |
|--|----------------------|----------|
| E308L-18<br>STAINLESS STEEL ELECTRODE<br>AWS A5.4 ASME SFA5.4 CLASS E308L-16 AC/DC | 3/32 - 2.5mm X 300mm | PW308L25 |
|  | 1/8 - 3.2mm X 350mm  | PW308L32 |
|  | 5/32 - 4.0mm X 350mm | PW308L40 |
| E309L-18<br>STAINLESS STEEL ELECTRODE<br>AWS A5.4 ASME SFA5.4 CLASS E309L-16 AC/DC | 3/32 - 2.5mm X 300mm | PW309L25 |
|  | 1/8 - 3.2mm X 350mm  | PW309L32 |
|  | 5/32 - 4.0mm X 350mm | PW309L40 |
| E316L-18<br>STAINLESS STEEL ELECTRODE<br>AWS A5.4 ASME SFA5.4 CLASS E316L-16 AC/DC | 3/32 - 2.5mm X 300mm | PW316L25 |
|  | 1/8 - 3.2mm X 350mm  | PW316L32 |
|  | 5/32 - 4.0mm X 350mm | PW316L40 |

**PACKAGING: 2 kg (4.4 lbs) boxes, 20 kg (44 lbs) per carton**

# ALUMINUM ALLOYS

Precision made on the latest equipment from materials of the finest quality. **PowerWeld** spooled aluminum wire is triple degreased to provide the highest degree for cleanliness and luster. The **PowerWeld** "shaved finish" produces absolute uniformity in diameter along with excellent surface smoothness so as to guarantee uninterrupted feeding in automatic and semi-automatic operations.

Rigid quality controls in every stage of manufacture and packaging assure maximum welding and brazing efficiency and trouble free welding results. Unique cleaning methods remove all traces for oxides, lubricants and acids. Special packaging maintains absolute cleanliness and prevents contamination.

With state of the art, proprietary processes and advanced testing capabilities, **PowerWeld** is recognized for our quality aluminum welding products.

## ALUMINUM MIG WIRE



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BUREAU**

### SHAVED - TRIPLE DEGREASED PRECISION LEVEL LAYER WOUND

|           |                            |
|-----------|----------------------------|
| 404303001 | WIRE MIG .030 X 1# SPOOL   |
| 404303005 | WIRE MIG .030 X 5# SPOOL   |
| 404303013 | WIRE MIG .030 X 13# SPOOL  |
| 404303016 | WIRE MIG .030 X 16# SPOOL  |
| 404303501 | WIRE MIG .035 X 1# SPOOL   |
| 404303505 | WIRE MIG .035 X 5# SPOOL   |
| 404303516 | WIRE MIG .035 X 16# SPOOL  |
| 404304501 | WIRE MIG .045 X 1# SPOOL   |
| 404304516 | WIRE MIG .045 X 16# SPOOL  |
| 404311616 | WIRE MIG 1/16" X 16# SPOOL |
| 535603001 | WIRE MIG .030 X 1# SPOOL   |
| 535603005 | WIRE MIG .030 X 5# SPOOL   |
| 535603016 | WIRE MIG .030 X 16# SPOOL  |
| 535603501 | WIRE MIG .035 X 1# SPOOL   |
| 535603505 | WIRE MIG .035 X 5# SPOOL   |
| 535603516 | WIRE MIG .035 X 16# SPOOL  |
| 535604501 | WIRE MIG .045 X 1# SPOOL   |
| 535604516 | WIRE MIG .045 X 16# SPOOL  |
| 535611616 | WIRE MIG 1/16" X 16# SPOOL |
| 555404501 | WIRE MIG .045 X 1# SPOOL   |
| 555404520 | WIRE MIG .045 X 20# SPOOL  |

## ALUMINUM TIG WIRE



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|            |                               |
|------------|-------------------------------|
| ER4043-116 | WIRE TIG ALUMINUM 1/16" X 36" |
| ER4043-18  | WIRE TIG ALUMINUM 1/8" X 36"  |
| ER4043-332 | WIRE TIG ALUMINUM 3/32" X 36" |
| ER4043-532 | WIRE TIG ALUMINUM 5/32" X 36" |
| ER5356-116 | WIRE TIG ALUMINUM 1/16" X 36" |
| ER5356-18  | WIRE TIG ALUMINUM 1/8" X 36"  |
| ER5356-332 | WIRE TIG ALUMINUM 3/32" X 36" |
| ER5356-532 | WIRE TIG ALUMINUM 5/32" X 36" |

PACKAGING: 10# (4.5kg) Tubes 50# (22.7kg) Cartons