MILD & LOW ALLOY STEEL WIRES

PRODUCT	USES	TYPICAL CHEMICAL COMPOSITION OF THE WIRE	MECHANICAL PROPERTIES 0F ALL WELD METAL (AS WELDED)
70S-2 AWS A5.18 ER70S-2 MSDS THIS PAGE AVAILABLE	70S-2 is a triple deoxidized mild steel welding wire for TIG and MIG welding applications. In addition to manganese and silicon, it contains aluminum, titanium and zirconium as deoxidizers. MIG welding of mild steels can be conducted with either carbon dioxide or argon-CO or argon-2% oxygen as shielding gasses. For TIG welding 100% argon is recommended.	Carbon .05 Manganese 1.15 Silicon .45 Phosphorus .022 Sulfur .018 Aluminum .09 Titanium .06 Zirconium .04 Copper .35 Iron Balance	Tensile Strength: 74,800 PSI 520 MPA Yield Strength: 62,000 PSI 430 MPA Elongation: 24% Impact Strength: @ -20°F / -29°C 45 ft-lbs 60 Joules
70S-3 AWS A5.18 ER70S-3	70S-3 is a mild steel welding wire for TIG and MIG welding applications. MIG welding can be conducted with either argon-oxygen or argon-CO as shielding gasses. For TIG welding, 100% argon is recommended.	Carbon .07 Manganese 1.19 Silicon .52 Phosphorus .021 Sulfur .022 Copper .40 Iron Balance	Tensile Strength: 75,500 PSI 520 MPA Yield Strength: 61,500 PSI 420 MPA Elongation: 23% Impact Strength: @ 0°F / 18°C 35 ft-lbs 47 Joules
70S-6 AWS A5.18 ER70S-6 OUR MOST POPULAR	70S-6 is a mild steel welding wire with higher levels of deoxidizers (Mn & Si) compared to other mild steel welding wires. This wire is exceptionally suitable for welding of mild steels with moderate amounts of scale or rust. For MIG welding, argon-oxygen or argon-CO may be used as shielding gas. For TIG welding, 100% argon is recommended as the shielding gas. **GENERAL PURPOSE ALSO WORKS GREAT ON 100% C02 (MIG) FOR GENERAL FABRICATION & REPAIRS**	Carbon .09 Manganese 1.65 Silicon .95 Phosphorus .022 Sulfur .018 Copper .35 Iron Balance	Tensile Strength: 78,000 PSI 540 MPA Yield Strength: 64,500 PSI 450 MPA Elongation: 24% Impact Strength: @ -20°F / -29°C 45 ft-lbs 60 Joules
80S-B2 AWS A5.28 ER80S-B2	80S-B2 is designed for the gas metal arc welding of 1-1/4 Cr / 1/2 Mo steels, which are used for high temperature service. Preheating and interpass temperatures of not less than 300° F must be used during welding. NOTE: Mechanical properties listed to the right reflect utilization of a post-weld heat treatment between 1125°F and 1175°F for one hour.	Carbon .09 Manganese .55 Silicon .48 Chromium 1.35 Molybdenum .55 Phosphorus .012 Sulfur .006 Copper .15	Tensile Strength: 85,000 PSI 590 MPA Yield Strength: 71,500 PSI 490 MPA Elongation: 21% Impact Strength: @ 32°F / 0°C 60 ft-lbs 80 Joules
80S-D2 AWS A5.28 ER80S-D2	80S-D2 is a low alloy steel wire with 2% manganese and .5% molybdenum as alloying elements. The weld deposits have moderately high strength with adequate low temperature toughness. A preheat and interpass temperature of not less than 300'F is required during welding. NOTE: Mechanical properties (listed to the right) of welds are greatly influenced by the preheat, interpass temperature, the heat input, and the postweld heat treatment.	Carbon .11 Manganese 1.95 Silicon .65 Molybdenum .50 Phosphorus .012 Sulfur .017 Copper .25 Iron Balance	Tensile Strength: 84,000 PSI 580 MPA Yield Strength: 71,500 PSI 490 MPA Elongation: 19% Impact Strength: @ -20°F / -29°C 35 ft-lbs 47 Joules
90S-B3 AWS A5.28 ER90S-B3	90S-B3 is designed for gas metal arc welding of 2-1/4 Cr / 1 Mo steels, which are used for high temperature applications. A preheat and interpass temperature of not less than 350°F should be maintained during welding. NOTE: Mechanical properties listed to the right reflect utilization of a post-weld heat treatment between 1250°F and 1300°F for one hour.	Carbon .10 Manganese .62 Silicon .48 Chromium 2.55 Molybdenum 1.08 Phosphorus .009 Sulfur .006 Copper .12	Tensile Strength: 94,500 PSI 650 MPA Yield Strength: 80,500 PSI 550 MPA Elongation: 19% Impact Strength: @ 68°F / 20°C 80 ft-lbs 105 Joules
100S-1 A5.28 ER110S-1	100S-1 was developed for welding high strength low alloy steel plates such as HY80 & HY100 and other similar steels used on military vessels. This wire produces high tensile strength, high impact resistance weld deposits that retain their toughness to -70°F making it suitable for low temperature and critical applications A preheat and interpass temperature of not less than 300°F is required during welding. NOTE: Mechanical properties (listed to the right) of welds are greatly influenced by the preheat, interpass temperature, the heat input, and the post-weld heat treatment.	Carbon .06 Manganese 1.65 Silicon .35 Chromium .10 Nickel 1.75 Molybdenum .35 Sulfur .008 Phosphorus .007 Copper .22 Iron Balance	Tensile Strength: 114,500 PSI 790 MPA Yield Strength 92,000 PSI: 680 MPA Elongation: 17% Impact Strength: @ -60°F / -51°C 65 ft-lbs 87 Joules
110S-1 AWS A5.28 ER110S-1	110S-1 is intended for applications where high strength, combined with low temperature ductility, are prime considerations. Applications include welding of HY100 and other high strength, low alloy steels. A preheat and interpass temperature of not less than 300°F is required during welding. NOTE: Mechanical properties (listed to the right) of welds are greatly influenced by the preheat, interpass temperature, the heat input, and the post-weld heat treatment.	Carbon .07 Manganese 1.55 Silicon .45 Chromium .30 Nickel 2.30 Molybdenum .42 Sulfur .005 Phosphorus .008 Copper .22 Iron Balance	Tensile Strength: 115,000 PSI 790 MPA Yield Strength 98,000 PSI: 680 MPA Elongation: 16% Impact Strength: @ -60°F / -51°C 65 ft-lbs 87 Joules

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