

**Low Alloy MIG/MAG
Welding Wires**





AMA 80-11M

Standards: AWS/ASME SFA-5.28

ER 80S-G (~ER80S-B2)

Application/ Properties: Medium-alloyed wire for TIG welding of Cr Mo-alloyed creep resistant boiler and pipe steels subjected to operating temperatures up to 550 °C.

This wire shall be welded using mixed shielding gas. Observe direction as to pre-weld heat treatment of materials.

Analysis of Wire electrode% (Typical value):

C	Si	Mn	Cr	Mo
0.1	0.6	1	1.1	0.5

Shielding gas: DIN EN 439-M21 (5-25%CO₂, Balance Ar)

Mechanical properties of all-weld metal :

Heat Treatment	Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation Lo = 4d %	Impact energy (Joule) ISO - V 25 °C
T	600-700	>500	>21	>80
N+T	480-560	>350	>25	>80

T= treatment 30 min at 720C, furnace cooling to 300C

N+T= norm + treatment 30 min at 930 C, air cooling + 30 min at 720 C, furnace cooling to 300C.

Material:

Creep resistant boiler 13 Cr Mo 44, 15 Cr Mo 3 and pipe steels

Delivery: Only Copper coating wound wire - reel on:

weight :15kg.

diameter : 2-1.7 mm

Note: other weight & sizes are produced upon customers request.





AMA 80-12M

Standards: AWS/ASME SFA-5.28

ER 80S-G

Application/ Properties: Medium-alloyed wire for MAG welding of atmospheric corrosion resistant steels and structural steels. Weld metal have good toughness and mechanical properties.
This wire can be use with Co₂ or Ar-Co₂ mixed gases.

Analysis of Wire electrode% (Typical value):

C	Mn	Si	Ni	Cr	Cu
0.7	1.45	0.8	0.77	0.3	0.35

Shielding gas: 80Ar-20W₂

Mechanical properties of all-weld metal :

Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation A4 (%)	Impact energy (Joule) ISO - V	
			-40°C	-46°C
620	520	>24	60	50

Material:

Atmospheric corrosion resistant and fine grain structural steels corten C, Corten B, Corten A

Delivery: Only Copper coating wound wire - reel on:

weight :15kg.

diameter : 1-2 mm

Note: other weight & sizes are produced upon customers request.





AMA 80-14M

Standards: AWS / ASME SFA 5.28
DIN 8575

ER 70S-A1(ER 80S-G)
SGMo

Application/ Properties: This wire suitable for welding of boilers, Pipes and steels having 0.5 percent Mo subjected to operating temperature up to 550°C.

Analysis of Wire electrode% (Typical value):

C	Si	Mn	P	S	Mo
0.1	0.6	1.1	0.016	0.03	0.5

Shielding gas: DIN EN 439-M21 (5-25%CO₂, Balance Ar)

Mechanical properties of all-weld metal :

Tensile Strength (N/mm ²)	Yield Strength (N/mm ²)	Elongation A5 (%)	Impact energy (Joule) ISO - V 25 °C
520-620	>430	>24	>80

Material:

Creep resistant boiler and pipe steels-----St 35.8, St 45.8 ,
17Mn4, 15Mo3
pipe steels-----16Mo3,HI, HII, StE 360.7, StE 415.7, StE 385.7
API Standard steels-----X52, X56, S60

Delivery: Only Copper coating wound wire - reel on:
weight :15kg.
diameter : 2-1.7 mm

Note: other weight & sizes are produced upon customers request.

