

**Standards**

TS EN ISO 16834-A : G 69 5 M21 Mn3Ni1CrMo
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AWS A5.28 : ER110S-G

**Chemical Composition of  
Welding Wire % (Typical)**

C	Si	Mn	Mo	Ni	Cr	Cu
0.12	0.50	1.7	0.3	1.40	0.3	0.35

**Mechanical Properties**

Yield Strength (N/mm <sup>2</sup> )	Tensile Strength (N/mm <sup>2</sup> )	Impact Strength (ISO-V/-50°C)	Elongation ((L <sub>0</sub> =5d <sub>0</sub> ) (%))
min. 690	770-940	min. 47 J	min.17

**Typical Base Material Grades**

- High strength structural steels and fine grained steels
- S690Q, L690M, N-A-XTRA 70, USS-T1, BH 70 V, HY 100, ASTM A514 Gr.F

**Features and Applications**

- ER 110 SG is low alloyed and high strength GMAW wire and GTAW rods
- It is used for joining of the high strength low alloy steels and the fine grained constructional steels with minimum yield strength of 690 N/mm<sup>2</sup>, especially Hardox and Weldox sheets
- Boilers, pressure vessels, pipelines, structure steels are the other application areas
- Weld metal has high impact and toughness at low temperatures
- Pre-heat can be according to the base material
- Shielding gases - MAG: (Ar+% 15-25 CO<sub>2</sub>) / TIG: (Ar)

**Welding Positions**

**Current Type**

MAG D.C.(+)

**Operating Data**

Product Code	Diameter (mm) / (inch)		Weight (Kg)	Package Type
3031100222	1.00	0.040"	15	BS 300 Spool
3031100225	1.20	0.047"	15	