

OVERVIEW

SOLECTROD supplies and exports all kinds of welding electrodes and welding wire all around the world.

FEATURES AND APPLICATIONS

- ⚡ Steel Sheet Structure
- ⚡ Automobiles Bodies
- ⚡ Machinery Guards
- ⚡ Shipbuilding Structures
- ⚡ Oil & Gas Industries (Pressure Vessels, Storage Tanks, Pipelines etc.)
- ⚡ Building Constructions
- ⚡ Containers and Transportation Vehicles

WHAT WE DO

Our services include supplying extensive range of material, offering high value turnkey packages at fair cost and negotiating concerns. We are always ready to attend the needs of our clients.

PRODUCTION OVERVIEW

We are able to supply a wide range of welding electrode and welding wire around the world. Our Products are being used in pressure vessel, bridge, ships, vehicles, Petroleum and Chemical industry, heavy machinery and etc.

OUR WELDING CONSUMABLES ARE AS FOLLOWS:

- ⚡ Mild Steel Welding Electrode (E6013, E6010,...)
- ⚡ High Tensile Steel Welding Electrode (E7016, E7018,...)
- ⚡ Iron powder, Rutile Coated Electrode (E7024)
- ⚡ Low Hydrogen Basic Coated Electrode (E8018 G)
- ⚡ Solid welding Wire (AWS A5.18)

APPLICATIONS

Mild Steel Welding Electrode is widely used for welding structural steels, shipbuilding, boiler, tanks and thin sheet in automotive industry, steel structures and silos.

high tensile strength mild steels are widely used in important projects of ships, boilers, high pressure vessels, bridges, skyscrapers, offshore drilling platforms etc..

Low Hydrogen Coated electrode is suitable for welding offshore structures, high pressure pipes.

Welding Wire is mainly used for butt and fillet welding structures made by shipping steels and low alloy steels, such as ships, containers, vehicles, engineering & construction machinery and so on.



// INTEGRATION OF BUSSINESS, SCIENCE AND TECHNOLOGY

WHO WE ARE

GET IN TOUCH

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SOLECTROD is a specialist in manufacturing high quality welding consumables catering to the requirements of diverse Heavy Engineering and Light Engineering industries.

Our group is one of the preferred suppliers of welding consumables under the brand name SOLECTROD for larger private sector engineering conglomerates and other Original Equipment Manufacturers.

E7018

According to:
AWS A5.1:7018
Approvals: BV
Preheat and redry:
2h 350°C



⚡ Description and applications

- Basic low hydrogen electrode are particularly suitable for high- strength, low-alloy steels, pressure vessels, even high-carbon steels with low purity.
- The weld metal toughness and ease of separation of slag and spatter-free welds with minimal spatter and no cracks, suitable for fine grain steels, for temperatures up to -60 degrees Celsius.
- The weld is resistant to cracks and higher tensile strengths in low temperature.
- Applicable for all welding positions, flat, vertical, horizontal and overhead.

⚡ Materials to be welded (steel)

Non-Alloy steels DIN STANDARD: St 33 to St 60.2	Ship plates A, B, D, E, AH to EH
Fine grained steel StE 255 to StE 355 WStE to WAtE 355	Pipe steel St 35 to St 52,4 StE 210,7 to StE 360,7
Boiler and pressure vessels HI, HII .17Mn 4,19Mn5	Cast steel GS-38, GS-52

⚡ Welding parameters

Current Range (A)	Current type	Length (cm)	Electrode's diagonal
105-155	DC(+ -)	45	3.2
130-200		45	4
200-275		45	5

⚡ Welding sediments characteristic

Sediment rate (kg/hr)	No. of electrodes per kg weld metal	Efficiency %	Electrode's diagonal
0.91	54	61	3.2
1/13	35	62	4

⚡ All weld metal mechanical properties

Elongation (Lo=5D)	Tensile strength Mpa	Yield strength Mpa
>22	>490	>400

⚡ Chemical composition of weld metal

C	Mn	S	P	Si
0.15	1.60	0.035	0.035	0.75

⚡ Impact properties of weld metal

Impact energy (J)	Testing temperature (°C)
>27	-45

E6013

According to:
AWS A5.1:E6013
Approvals: BV



⚡ Description and applications

- Rutile-Cellulose electrode, with a very smooth and stable arc, easy ultra-high welding with clean appearance.
- Suitable for welding structural steels, shipbuilding, boiler, tanks and thin sheet in automotive industry, steel structures and silos.
- Applicable in all welding positions, vertical, horizontal and over the head.

⚡ Materials to be welded

Non-Alloy steels DIN STANDARD: St 33 to St 52.3	Pipe steel StE 210.7 to StE 360.7 St 35 to St 35.8 St 45 to St 45.8
Fine grained steel StE 255 to StE 355 WStE 255 to WStE 355	Cast steel GS-38, GS-45
Boiler and pressure vessels HI, HII	Thin sheets 1623/1
Ship Plates A, B, D, E	

⚡ Welding parameters

Current Range (A)	Current type	Length (cm)	Electrode's diagonal
80-130	DC(+ -) AC	35	3.2
105 - 180		35	4
150 - 230		45	5

⚡ Welding sediments characteristic

Sediment rate (kg/hr)	No. of electrodes per kg weld metal	Efficiency %	Electrode's diagonal
0.91	54	61	3.2
1/13	35	62	4

⚡ All weld metal mechanical properties

Elongation (Lo=5D)	Tensile strength Mpa	Yield strength Mpa
>17	>430	>330

⚡ Chemical composition of weld metal

C	Mn	Si
0.20	1.20	1.00

⚡ Impact properties of weld metal

Impact energy (J)	Testing temperature (°C)
>70 >25	+20 0

CO 2 (MIG/MAG)

According to:
AWS A5.18: ER 70 S-6
EN 440: G42 3 CM G3Si 1
DIN 8559: SG2



⚡ Description and applications

- Possible to weld in all positions
- ARA-SG2 welding wire has uniform welding powder and has high penetration to use in MIG/MAG welding in structural building, ship buildings and pipe's steels using gases such as CO2 and other mixed gases like, argon with 5% to 25% of the CO2

⚡ Materials to be welded

Boiler and pressure vessels HI, HII, 71Mn 4T, 19Mn5*	Pipe steel St 37 0 to St 52 0
Cast steel GS-38, GS-45, GS-52	Fine grained steel StE 255 to StE 355 WStE 255 WStE 355 TSIE 255 TSIE 355
Non-alloy steel St 33, St 37-2 to St 52-3 St 50*, AT 60*	

⚡ All weld metal mechanical properties

GMAW 100% CO ₂				GMAW 75% Ar - 25% CO ₂			
Tensile strength	Yield strength	Elongation (%)	Impact	Tensile strength	Yield strength	Elongation (%)	Impact
MPa 500	MPa 424	(>22)	-29°C (j) >27	MPa 580	MPa 483	(>22)	-29°C (j) >27

⚡ Packing

Copper coil, on plastic spools, weight of 15 kg, diameters 0.8 to 1.2 mm

⚡ Chemical composition of weld metal (%)

C	Si	Mn	P≤	S≤
0,06 - 0,17	0,70 - 1,16	1,30 - 1,86	0,025	0,025