

## 6013 S

**CATEGORY** SMAW Stick Electrodes

**TYPE** Rutile-cellulosic electrode for stick welding in all positions

**APPLICATIONS** Shipbuilding, general construction, vessels, wagons, repair welding, pipe welding

**PROPERTIES** 6013S is a medium thick coated electrode for all kinds of steel structures and is particularly suited for welding jobs at poorly accessible points and badly prepared seams. The 6013S can be used in all positions, in particular it is ideally suited for vertical down welds upto 3,2 mm. Viscous weld metal, hence good gap bridging. Easy slag removal and the electrodes can be bent very well to improve accessibility to hard to reach places.

**CLASSIFICATION**

AWS	A 5.1: E 6012
EN ISO	2560-A: E 38 0 RC 11
DIN	1913: E 51 22RC3

**SUITABLE FOR**

Steel type:	DIN:	W.Nr.:
Unalloyed steels:	St 33 to St 52.3	1.0035 to 1.0570
Boiler plates:	HI, HII, 17 Mn4	1.0345, 1.0425, 1.0481
Pipe steels:	St 35 to St 52.4	1.0308 to 1.0581
-	StE 210.7 to StE 360.7	1.0307 to 1.0582
Shipbuilding plates:	A, B, D	1.0440, 1.0472, 1.0475
Steel castings:	GS-38 to GS-52	1.0416 to 1.0551
Thin sheets:	1623/1	-

**APPROVALS** TUV, CE approved

**WELDING POSITIONS:**



**WELD DEPOSIT WEIGHT %**

C	Mn	Si	Cr	Ni	Mo
0.08	0.50	0.30	-	-	-

**MECHANICAL PROPERTIES**

Heat Treatment	R <sub>p0,2</sub> (N/mm <sup>2</sup> )	R <sub>m</sub> (N/mm <sup>2</sup> )	A <sub>5</sub> (%)	Impact Energy (J) ISO-V			Hardness HRC / HV
				20°C	-40°C	-60°C	
AW	>360	450-550	>22	>60			

AW: as welded

**WELDING PARAMETERS PACKING**

Welding Parameters			Packing		
D (mm)	Length (mm)	Current (A) AC/DC+/-	kg / can	kg / 6pack	kg / 1000
2,0	300	50-60	2.5	15	9.5
2.5	350	65-80	2.5	15	17.6
3.2	350	110-135	2.6	15.6	29
4.0	350	140-170	2.6	15.6	44
5.0	350	180-210	3.4	20.4	66.66

**REDRYING TEMPERATURE** 120°C / 1 hr