

6013 Root

CATEGORY SMAW Stick Electrodes

TYPE Rutile basic electrode for SMAW welding

APPLICATIONS Shipbuilding, construction, buildings, pipe welding

PROPERTIES Thick basic-rutile coated electrode for welding low alloyed steels with tensile strength up to 510 N/mm². Recommended for root welding in pipelines due to excellent welding properties. The weld metal deposit has high mechanical properties and can be used for a wide range of materials.

CLASSIFICATION

AWS	A 5.1: E 6013
EN ISO	2560-A: E 35 2 RB 12
DIN	1913: E 43 43 RR (B) 7

SUITABLE FOR	Steel types	DIN:	W.Nrs.
	Unalloyed steels	St 33 to St 52.3	1.0035 to 1.0570
	Boiler plates	Hl, Hlll, 17Mn4	1.0345, 1.0435, 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, E	1.0440 to 1.0476
	Steel castings	GS-38 to GS-52	1.0416 to 1.0551
	Finegrained steels	StE 255 to StE 355	1.0461 to 1.0562
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APPROVALS CE approved

WELDING POSITIONS:



WELD METAL WEIGHT %

C	Mn	Si	Cr	Ni	Mo
0.10	0,5	0,2	-	-	-

MECHANICAL PROPERTIES

Heat Treatment	R _{p0,2} (N/mm ²)	R _m (N/mm ²)	A ₅ (%)	Impact Energy (J) ISO-V			Hardness HRc / HV
				-20°C	-40°C	-60°C	
AW	>380	470-600	>24	>47			

AW: as welded

WELDING PARAMETERS PACKING

Welding Parameters			Packing	
D (mm)	Length (mm)	Current (A) DC+/-/AC	kg / can	pcs / can
2,5	300	70-90	2,6	152
3,2	350	115-145	2,6	80
4,0	450	145-190	2,6	42

REDRYING TEMPERATURE 140°C / 1hr