

6013 PRODUCT DATA SHEET

RUTILE TYPE C-mn STEELS

- Superior weldability, finely rippled smooth weld beads
- Very soft arc, minimum spatter, radiographic quality welds
- Superior slag detachability
- Excellent impact notch toughness at 0°C

Classification AWS A5.1 : E6013 EN ISO 2560-A: E 38 0 R 12

Description and Applications

Rutile type medium coated electrode, used for the welding of large structures and process pipe work in the shipbuilding and construction industries where precise fit-ups are difficult to achieve. 6013 is a high quality electrode designed to give high impact toughness properties. The electrode formulation promotes a forceful arc to ensure sound fusion and is tolerant to variations in welding current, which are important considerations when welding under site conditions.

Base materials

S(P)235 to S(P)355; GP240-GP280

Typical Weld Metal Chemical Composition(%)

C	Si	Mn	P	S
0.070	0.30	0.40	0.030	0.030

All weld metal Mechanical Properties (Typical)

Heat Treatment	Tensile Strength R _m (N/mm ²)	Yield Strength R _p (N/mm ²)	Elongation A ₅ (%)	Charpy Impact Value (ISO-V J 0°C)
As Welded	≥470-540	≥380	≥24	≥70

Amperes (A)

1.60mm	2.00mm	2.40mm	2.50/2.60mm	3.15/3.20mm	3.25mm	4.00mm	4.80mm	5.00mm
30-45	50-70	60-80	60-90	90-130	110-140	140-180	160-220	180-230

Welding Instruction

Keep dry and avoid condensation.
Re-drying not generally required. If necessary : 100-110°C for 1 hour.

Welding Positions

