

Product Data Sheet

C-Mn and low-alloy steels

SUPER OPTIMAL 6013

- ★ Rutile medium-heavy coated, finely rippled smooth weld beads.
- ★ Very soft arc, minimum spatter, smooth fine rippled radiographic weld bead.
- ★ Superior slag detachability.
- ★ Excellent impact notch toughness at 0°C.

Classification **AWS A5.1:** E 6013

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. SUPER OPTIMAL 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

All weld metal mechanical properties (typical)

Heat Treatment	Tensile Strength R_m (N/mm ²)	Yield Strength R_m (N/mm ²)	Elongation $A_5\%$	Impact Energy ISO-V(J) 0°C	Hardness
As welded	470-540	≥380	≥24	≥70	--

Typical weld metal Chemical Composition (%)

C	Si	Mn	P	S
0.07	0.20	0.50	0.03	0.03

Amperes (A)

2.50	3.15	4.00	5.00
60-80	110- 135	160-180	180-230

Storage and Redrying :

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

