

Product Data Sheet

Rutile type C-Mn steels

SUPER OPTIMAL 6013 SWMF

- ★ 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:** E 6013 **EN ISO 2560-A:** E 38 0 R 12

Description and applications Premium 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 SWMF 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	Yield Strength R_p (N/mm ²)	Tensile Strength R_m (N/mm ²)	Elongation A_5 (%)	Charpy impact value (ISO-V J 0°C)
As welded	≥380	470-540	≥24	≥70

Amperes (A)

2.00mm	2.40mm	2.50/2.60mm	3.15/3.20mm	3.25mm	4.00mm	4.80mm	5.00mm
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



SUPERON SCHWEISSTECHNIK INDIA LTD.

Plant 1 : A-125, Okhla Industrial Area, Phase 2, New Delhi -110020
 Corporate Office & Plant 2 : 552, Pace City II, Sector 37, Gurugram, Haryana -122001
 Plant 3 : B-100, Mayapuri Industrial Area, Phase-1, Near Police Station, New Delhi-110064
 Plant 4: A-334, RIICO Industrial Area, Karoli, Bhiwadi, Rajasthan - 301707
Ph No. 0124 -4940900, **Mob:** +91-84480 86859 | **Email:** export@superoncorp.com | **Website:** www.superoncorp.com