SUPRANOX 310

OERLIKON

MMA Electrodes
Stainless and Heat resistant steels

Rutile coated MMA electrode for welding refractory austenitic steels and cast steels of grade 25 % chromium - 20 % nickel. Fully austenitic weld metal, non-scaling up to +1200 °C. Weld metal is not resistant to sulphurous combustion gases. SUPRANOX 310 is a good compromise between finish, weldability and weld metal properties. If there is a substantial risk of hot cracking, use BASINOX 310.

Classification	
AWS	A5.4: E310-16
EN	1600: E 25 20 R12

Approvals	Grades

Analysis of all-weld metal (Typical values in %)

C	Mn	Si	P	S	Cr	Ni	Mo	Nb	Cu	N	Ferrite
0.10	1.70	0.75	-	-	27	21	-	-	-	-	-

All-weld metal Mechanical Properties

Heat Treatment	Yield Strength N/mm²	Tensile Strength N/mm²	Elongation A5 (%)	Impact Energy ISO - V (J) + 20 °C	Hardness
As Welded	≥ 350	≥ 550	≥ 30	≥ 60	-

Materials

AISI 310; 1.4845 (X8CrNi25-21); 1.4841 (X15CrNiSi25-21); 1.4828 (X15CrNiSi20-12)

Storage and redrying

Keep dry and avoid condensation.
Re-drying not generally required
If necessary: 300-350 °C for 2 hour, 5 times max

Current condition and welding position

DC+; AC

Packaging data

Diameter (mm)	Length (mm)	Current (A)	Electrode average weight (g)	Weld metal weight per electrode (g)
2,0	300	40-60	10,9	6,5
2,5	300	60-90	16,9	10,0
3,2	350	90-120	32,7	19,6
4,0	350	100-150	47,2	28,3