

Basic-coated MMA electrode for welding high-temperature creep-resistant, heat resistant and corrosion resistant Ni-Cr alloys. Cryogenic toughness down to  $-196^{\circ}\text{C}$ , creep resistant  $<800^{\circ}\text{C}$ , non-scaling  $<1000^{\circ}\text{C}$ . In a sulphurous atmosphere the weld metal can be used up to  $500^{\circ}\text{C}$ . Even at higher temperatures, there is only limited carbon diffusion in the weld metal thus avoiding crack-prone carbides at the weld interface of dissimilar joints. The weld metal coefficient of thermal expansion is between austenitic and ferritic steels, therefore SUPRANEL is used for joining ferritic to austenitic steels, dissimilar joints, with operating temperatures or postweld heat treatment  $>300^{\circ}\text{C}$ .

It is specially indicated for repairing works on difficult-to-weld steels and buffer layer due to its recovery 140% and type of core wire.

### Classification

EN ISO	14172: E Ni 6182
AWS	A5.11: E NiCrFe-3

### Chemical analysis (Typical values in %)

C	Mn	Si	P	S	Cr	Ni	Nb	Fe
0.05	7.8	0.3	$\leq 0.020$	$\leq 0.015$	16	Rem.	1.9	7.8

### All-weld metal Mechanical Properties

Heat Treatment	Yield Strength (MPa)	Tensile Strength (MPa)	Elongation A5 (%)	Impact Energy ISO - V (J)
				$-196^{\circ}\text{C}$
As Welded	$\geq 360$	$\geq 550$	$\geq 30$	$\geq 60$

### Materials

UNS N06600; UNS N08800; UNS N08810

2.4816; 1.4876; 1.4958

### Storage

Keep dry and avoid condensation.

Re-dry at  $300-350^{\circ}\text{C}$  for 2 hours, 5 times max

### Current condition and welding position

DC+



PA PB PC

### Packaging data

Diam. (mm)	Length (mm)	Current (A)	Approx. weight (kg/1000)	CBOX		VPM	
				PC	Code	PC	Code
2.5	350	60-90	26.4	165	●	75	●
3.2	350	80-120	44.8	95	●	45	●
4.0	350	115-160	67.0	60	●	30	●
5.0	450	145-210	137.5	40	●	15	●