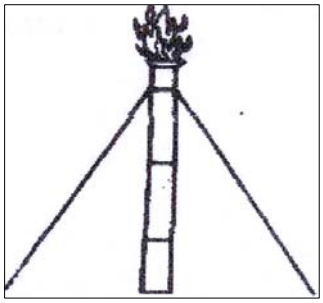
Product Data Sheet

SUPER OPTIMAL NiCrFe-3

Niobium bearing, all position, Inconel electrode for joining high temperature and cryogenic steels and nickels

- ★ **Excellent out of position.**
- ★ **Phenomenal physical properties.**
- ★ **Excellent scaling resistant at high temperature.**
- ★ **Excellent corrosion resistant at normal and elevated temperatures.**
- ★ **Performs unusually well on AC current.**



CLASSFICATION	AWS A 5.11 : E Ni Cr Fe-3

Description and Applications:
All position electrode for welding of inconel, nickel, monel, nickel-chromium-iron alloys, H K alloys, dissimilar steels such as carbon steels, stainless steels, nickel and nickel alloys to each other.

Weld deposits are resistance to scaling at high temperatures and corrosion resistance at normal as well as at elevated temperatures. Suitable for -196^{0}C to + 1050^0 C.

Microstructure:
In the as welded condition this nickel base weld metal consists of austenite with a few carbides.

Typical Weld Metal Chemical Composition (%):

C	Mn	Si	Cr	P	S	Nb	Fe	Ni
0.04	7.00	0.50	16.50	0.02	0.010	2.00	7.00	Rem.

All weld metal Mechanical properties (Typical)

Yield strength R_p 0,2 %N/mm^2	Tensile strength R_m N/mm^2	Elongation A_5 %	Charpy Impact value	
			ISO-V J RT	-196˚C
420	700	43	≥90	≥47

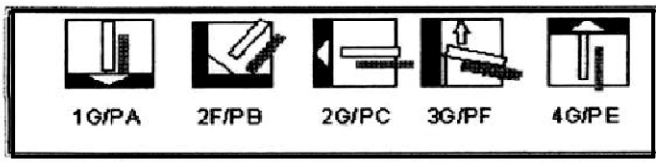
Storage and Redrying : Keep dry and avoid condensation.
Re-dry electrode prior to welding at 300°C for 1 to 2 Hours.

Recommended Current: DC+; AC

Recommended Amperage Settings:

Diameter (mm)	3/32(2.50)	1/8(3.15)	5/32(4.00)
Minimum Amperage (Amp)	50	70	90
Maximum Amperage (Amp)	70	95	120

Welding Position:



Welding Techniques:
Weld at minimum amperage to maintain low heat input.

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