

NICKEL BASED ALLOY

GLST-N681 ELECTRODE

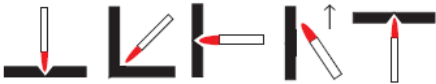
Classification: AWS A5.11M ENiCrFe-1
EN E Ni 6062

Characteristics and Application:

GLST-N681 is a Nickel base electrode for DC and the welding can be done in all positions with diameter under 3.2mm. The nominal composition of the weld is including 70%Ni, 15%Cr, 8%Fe, 3.5Mn , 2.5Nb+Ta, and provides excellent mechanical property, good heat resistance, good corrosion resistance and good porosity resistance for service temperatures from -196°C to 980°C.

Excellent performance in good bead appearance, less spatter, easy slag removal and stable arc are all obtainable. It is suitable for the welding of NiCrFe-alloy steel such as Inconel 600, ASTM B163, B166, B167, B168 and dissimilar metals welding of joining steel to nickel alloy steel.

Welding Position :



Chemical Composition of Deposited Metal :

Element wt%	C	Mn	Si	Cr	Ni	Fe	P	S	Nb+Ta
AWS	0.08	3.5	0.75	13.0-17.0	≥62	11.0	0.03	0.015	1.5-4.0
Type Value	0.052	3.21	0.21	14.65	70.20	9.19	0.012	0.008	2.23

Mechanical Property of Deposited Metal:

	Yield Stress MPa	Tensile Strength MPa	Elongation %	Charpy V-notch J/°C
AWS	-	550	30	-
Type Value	-	620	46	80/-196

Notes on Usage:

- 1 Rebake the electrodes at 350-400°C for one hour before use.
- 2 Clean up the contaminations on the base metal and welding seam.
- 3 Reduce heat input as possible, and while welding with weave method, moving range should be controlled within 2.5 times of the wire’s diameter.
- 4 Notice the travel speed to prevent from slag inclusion.
- 5 Keep the inter-pass temperature under 100°C.
- 6 Filling the crater after welding to avoid from crater cracks. Grinding with the Grinder if ther crack exists and then continue welding.
- 4 Keep short arc length when welding.To avoid blowholes when striking the arc, please use backstep method welding technique during welding process.

Sizes and Recommended Parameters:

Diameter and Size/mm		2.6×350	3.2×350	4.0×350
Current/Amp	F	60-90	70-120	110-150
	V, OH	55-80	65-110	80-130