

NICKEL BASED ALLOY

GLST-N683 ELECTRODE

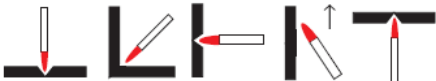
Classification: AWS A5.11M ENiCrFe-3
EN E Ni 6182

Characteristics and Application:

GLST-N683 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 65%Ni, 15%Cr, 8%Fe, 7.5%Mn, 2%Nb+Ta, and provides excellent mechanical property, good heat resistance, good porosity resistance, good oxidization resistance and good corrosion 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, 601, Incoloy 800, ASTM B163, B166, B167, B168 and dissimilar metals welding of joining and creep resistant low-alloy steel joints.

Welding Position :



Chemical Composition of Deposited Metal :

Element wt%	C	Mn	Si	Cr	Ni	Fe	P	S	Nb+Ta
AWS	0.10	5.0-10.0	1.0	13.0-17.0	≥60	10.0	0.02	0.015	1.0-2.5
Type Value	0.06	6.15	0.50	14.21	67.4	9.25	0.014	0.010	1.69

Mechanical Property of Deposited Metal:

	Yield Stress MPa	Tensile Strength MPa	Elongation %	Charpy V-notch J/°C
AWS	-	550	30	-
Type Value	-	625	40	70/-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	70-115	90-145
	V, OH	55-80	65-110	85-135