

NICKEL BASED ALLOY

GLST-N653 ELECTRODE

Classification: AWS A5.11M ENiCrMo-3

EN E Ni 6625

Characteristics and Application:

GLST-N653is 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 60%Ni, 22%Cr, 9%Ni, 5%Fe, 3.5%Nb+Ta, and provides stable arc smooth weld bead appearance, little spatter, easy slag removal, excellent porosity resistance and consistent mechanical property of deposited metal. It is suitable for the equipment of nuclear project and vitriol, nitric acid, hydrofluoric acid, such as Inconel 625 alloy, ASTM B443, B444, B446 and dissimilar metal welding of steel and nickel based alloy.

Welding Position :



Chemical Composition of Deposited Metal :

Element wt%	C	Mn	Si	Cr	Ni	Fe	P	S	Nb+Ta	Mo
AWS	0.10	2.0	0.8	20.0-23.0	≥55	7.0	0.02	0.015	3.0-4.2	8.0-10.0
Type Value	0.06	0.80	0.28	20.38	61.52	4.26	0.012	0.009	3.21	8.55

Mechanical Property of Deposited Metal:

	Yield Stress MPa	Tensile Strength MPa	Elongation %	Charpy V-notch J/℃
AWS	-	760	30	-
Type Value	-	780	38	70/-196

Notes on Usage:

- 1 Rebake the electrodes at 350-400℃ 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℃.
- 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	95-145