

ArcStar 81N1M

AWS A5.29 E81T1-Ni1MJ
EN ISO 17632-A-T 46 3 1Ni P M21 1 H5

Characteristics and Applications:

ArcStar 81N1M is a gas-shielded flux cored wire for all-position welding. It is designed for welding 590 N/mm² high tensile steel for low temperatures.

It provides good weldability with smooth bead appearance, less spatter and stable arc as well as good impact properties down to -50 .

It is also suitable for welding on construction machinery, shipbuilding, offshore, structures, bridges, storage tanks and piping.

Notes on usage:

1. Excessive heat input should reduce impact value. Therefore, perform welding with selecting proper heat input based on the required impact value.
2. Must pre-heat at 50~150 varied on steels, plate thickness and restraint.
3. Use DC(+) polarity.
4. Use 75~80%Ar+25~20%CO₂ as shielding gas.

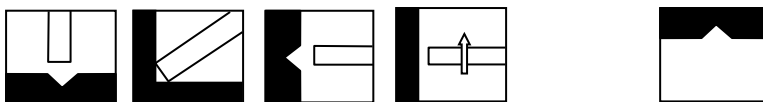
Typical chemical composition of weld metal (wt%):

C	Mn	Si	P	S	Ni
0.05	1.25	0.15	0.012	0.007	1.00

Typical mechanical properties of weld metal:

Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J(ft-lbf)	PWHT
611(89)	656(95)	26	-40 (-40)	108(80)
568(82)	628(91)	26	-50 (-60)	65(48)
				600 *1hr

Welding position:



Sizes and recommended parameter range (DC<+>) :

Stick out:15-25(mm), flow rate:20-25(l/min):

Diameter (mm)		
VU、OH	150A-220A / 24V-28V	160A-220A / 24V-28V

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