ArcStar 81N1M

AWS A5.29 E81T1-Ni1MJ
EN ISO 17632-A-T 46 4 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/mm^2 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%CO_2 as shielding gas.

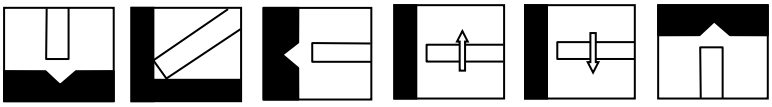
Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S	Ni
AWS	≦0.12	≦1.50	≦0.80	≦0.030	≦0.030	0.80-1.10
EN ISO	-	≦1.4	≦0.80	-	-	0.6-1.2
Typical value	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
AWS	≧470(68)	550-690(80-100)	≧19	-40℃(-40℉)	≧27(20)	-
EN ISO	≧460(67)	530-680(77-99)	≧20	-30℃(-20℉)	≧47(35)	-
Typical value	611(89)	656(95)	26	-40℃(-40℉)	108(80)	-
	568(82)	628(91)	26	-50℃(-60℉)	65(48)	600℃x1hr

Welding position:



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

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

Position \ Diameter (mm)	1.2	1.6
F、HF	180A-300A / 24V-34V	200A-350A / 24V-32V
VU、OH	150A-220A / 23V-28V	160A-220A / 22V-26V

* The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and TienTai Electrode Co., Ltd. expressly disclaims any liability incurred from any reliance thereon. Typical data is obtained when welded and tested in accordance with AWS specification. Other tests and procedures may produce different results. No data is to be construed as recommendation for any welding condition or technique not controlled by TienTai Electrode Co., Ltd.

FLUX CORED WIRES

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