ArcStar 81N1SR

AWS A5.29 E81T1-Ni1CJ
EN ISO 17632-A-T 46 4 1Ni P C1 1 H5

Characteristics and Applications:

ArcStar 81N1SR is a gas-shielded flux cored wire designed for welding 590 N/mm^2 high tensile steel.

It is suitable for all position welding. It provides stable arc, less spatter, easy slag removable, excellent X-Ray inspection. The weld metal contains about 1%Ni and makes good notch toughness at temperatures down to -50℃ under as-welded & PWHT condition. It is suitable for welding of offshore structure, steel structure, bridge, storage tank, pressure vessels, piping etc.

Notes on usage:

1. When the heat input is excessive, the impact value tends to be reduced. Therefore, perform welding with selecting proper heat input depending on the required impact value.
2. Use DC(+) polarity.
3. Must preheat at 50~150°C depending on steels, plate thickness and restraint.
4. Use CO_2 as shielding gas.
5. Keep the product dry, while it is stored or delivered.

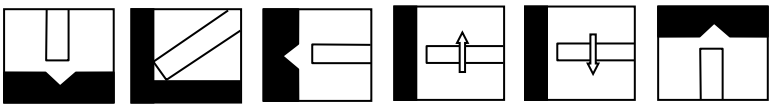
Typical chemical composition of weld metal (wt%):

	C	Mn	Si	P	S	Ni	Mo
AWS	≤0.12	≤1.50	≤0.80	≤0.030	≤0.030	0.80-1.10	≤0.35
EN ISO	-	≤1.4	≤0.80	-	-	0.6-1.2	≤0.2
Typical value	0.06	1.35	0.40	0.014	0.007	0.95	0.01

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	-40℃(-40℉)	≥47(35)	-
Typical value	550(80)	620(90)	26	-40℃(-40℉)	120(89)	-
	485(70)	580(84)	27	-50℃(-60℉)	80(59)	620℃×5hrs

Welding position:



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

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

Position \ Diameter(mm)	1.2	1.6
F、HF	180A-300A / 26V-36V	200A-350A / 24V-38V
VU、OH	150A-220A / 24V-28V	160A-220A / 24V-28V

FLUX CORED WIRES

TIENTAI
AN ILLINOIS TOOL WORKS COMPANY
No.6, Kaifa 4th Rd., Rende Dist., Tainan City 717, Taiwan
TEL:886-6-2663721 /FAX:886-6-2664301
E-mail:twtrad@itwweld.com
http://www.tientai.com