

SM-82 / ST-82

Conformances

AWS A5.14/ ASME SFA5.14 ERNiCr-3
 JIS Z3334 S Ni6082 (NiCr20Mn3Nb)
 EN ISO 18274 S Ni 6082

Applications

- LNG and LPG storage plant, Boilers of the thermal power stations
- Ni-based alloys and high temperature alloys

Features

- Good corrosion-resistant and heat-resistant
- Excellent strength and toughness
- No preheat is required

Welding Position

Current

GMAW: DC+(Pulse)
 GTAW: DC-

Shielding Gas

Ar, Ar + He

Diameter / Packaging

Diameter	MIG	TIG
mm (in)	12.5kg (27.6lbs)	5kg (11lbs)
1.0 (0.040)	✓	
1.2 (0.045)	✓	
1.4 (0.052)	✓	
1.6 (1/16)	✓	
2.0 (5/64)		✓
2.4 (3/32)		✓
3.2 (1/8)		✓

Typical Chemical Composition of the Wire (%)

C	Si	Mn	P	S	Cr	Ni	Nb+Ta
0.04	0.1	3.2	0.006	0.001	20.0	73.0	2.5

Typical Mechanical Properties of All-Weld Metal

YS MPa(lbs/in ²)	TS MPa(lbs/in ²)	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft-lbs)
-	660 (96,000)	35.0	-196 (-321)	80 (59)

Typical Welding Parameters

Diameter, Polarity Shielding Gas	Amp. (A)	Volt. (V)
	1.2mm (0.045 in) DC+	
Ar, Ar + He	180	28
	2.4mm (3/32 in) DC-	
Ar	110	12

SMAW

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX