

SM-455 / ST-455

Conformances

AWS A5.14/ ASME SFA5.14 ERNiCrMo-7
JIS Z3334 SNI6455 (NiCr16Mo16Ti)

Applications

- Vessel engines
- Heat exchangers
- Offshore oil equipments
- Petrochemical plants
- Suitable for Hastelloy C4,C276

Features

- Ni based solid filler wire.
- Highly corrosive resistance in reductive, especially in oxidation conditions

Welding Position

Current

GMAW: DC+(Pulse)
GTAW: DC-

Shielding Gas

Ar, Ar + He

Diameter / Packaging

Diameter	MIG	TIG
mm (in)	12.5kg (27.8lbs)	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	Mo	Fe
0.013	0.05	0.01	0.004	0.003	17.5	65.0	15.0	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)
-	700 (102,000)	40.0		

Typical Welding Parameters

Diameter, Polarity Shielding Gas	Amp. (A)	Volt. (V)
	1.2mm (0.045 in) DC+	
Ar, Ar + He	150	29
	2.4mm (3/32 in) DC-	
Ar	110	12

SMW

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX