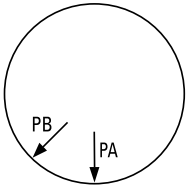
SM-100

High tensile steels

Conformances

AWS A5.28/ ASME SFA5.28 ER100S-G

Welding Position



Applications

- 0.3Cr-1.7Ni-0.25Mo-alloyed, High strength steel

Current

DC +

Features

- Excellent TS and impact value at low temperature
- Stable arc with High-Current
- Low spatter

Shielding Gas

Ar + CO_2

Diameter / Packaging

Diameter	Spool			Ball Pac		
mm (in)	5kg (11lbs)	15kg (33lbs)	20kg (44lbs)	250kg (551lbs)	300kg (661lbs)	350kg (771lbs)
0.8 (0.033)	√	√	√	√	√	√
0.9 (0.035)	√	√	√	√	√	√
1.0 (0.040)	√	√	√	√	√	√
1.2 (0.045)	√	√	√	√	√	√
1.4 (0.052)	√	√	√	√	√	√
1.6 (1/16)	√	√	√	√	√	√

Typical Chemical Composition of the Wire(%)

C	Si	Mn	P	S	Cr	Ni	Mo	V
0.081	0.48	1.76	0.013	0.012	0.28	1.76	0.23	0.09

Typical Mechanical Properties of All-Weld Metal

	YS MPa(lbs/in²)	TS MPa(lbs/in²)	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft·lbs)
As welded with 80% Ar + CO_2	711 (103,100)	756 (109,600)	20.4	-20 (-4) -40 (-40)	114 (84) 83 (61)
As welded with 90% Ar + CO_2	724 (105,000)	766 (111,100)	18.9	-20 (-4) -40 (-40)	106 (79) 78 (57)

Typical Welding Parameters

Diameter, Polarity Shielding Gas	CTWD mm(in)	Wire Feed Speed m/min (in/min)	Amp. (A)	Volt. (V)	Deposition Rate kg/hr (lb/hr)
1.2mm (0.045in), DC +					
Mixed Gas (80%Ar + CO_2)	20 (3/4)	3.7 (145)	150	17.5	1.9 (4.2)
		6.2 (244)	200	24	3.1 (6.8)
		11.2 (440)	280	30	5.6 (12.3)