

# SC-81B2

Type : Rutile

## Conformances

AWS A5.36/ ASME SFA5.36 E81T1-C1PZ-B2  
 (AWS A5.29/ ASME SFA5.29 E81T1-B2C)  
 EN ISO 17632-A-T CrMo1 P C1 2

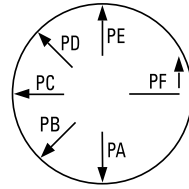
## Applications

- Petrochemical industry
- Pressure vessel

## Features

- Stable arc and low spatter level

## Welding Position



## Current

DC +

## Shielding Gas

100% CO<sub>2</sub>

## Diameter / Packaging

Diameter	Spool			Pac		
	5kg (11lbs)	15kg (33lbs)	20kg (44lbs)	100kg (221lbs)	200kg (441lbs)	250kg (551lbs)
1.2 (0.045)		✓				
1.4 (0.052)		✓				
1.6 (1/16)		✓				

### Typical Chemical Composition of All-Weld Metal (%)

C	Si	Mn	P	S	Cr	Mo
0.066	0.41	0.83	0.016	0.017	1.19	0.51

### Typical Mechanical Properties of All-Weld Metal

YS MPa(lbs/in <sup>2</sup> )	TS MPa(lbs/in <sup>2</sup> )	EL (%)	PWHT
575 (83,500)	656 (95,200)	22.4	690±15°C X 1Hr

### 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)	Efficiency (%)
<b>1.2mm (0.045 in) DC+</b>						
100% CO <sub>2</sub>	20-25 (51/64~1)	10.2 (400)	180-220	25-27	3.4 (7.5)	84-87
		11.5 (450)	230-270	27-29	4.5 (9.9)	85-88
		15.3 (600)	280-320	32-34	5.2 (11.4)	86-88
<b>1.4mm (0.052 in) DC+</b>						
100% CO <sub>2</sub>	20-25 (51/64~1)	7.6 (300)	230-270	27-29	3.9 (8.6)	85-87
		10.2 (400)	280-320	31-33	4.8 (10.6)	85-88
		12.8 (500)	310-350	35-37	5.8 (12.8)	86-89
<b>1.6mm (1/16 in) DC+</b>						
100% CO <sub>2</sub>	20-25 (51/64~1)	6.4 (250)	260-300	30-32	4.2 (9.2)	85-88
		7.6 (300)	310-350	32-34	4.8 (10.6)	86-88
		8.1 (320)	330-370	33-35	5.3 (11.7)	87-89
		9.2 (360)	380-420	37-39	5.7 (12.5)	87-90

SMAW

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX