

# SC-91B9

Type : Rutile

## Conformances

AWS A5.36/ ASME SFA5.36 E91T1-C1PZ-B91 H4  
 E91T1-M21PZ-B91 H4  
 (AWS A5.29/ ASME SFA5.29 E91T1-B9C/M H4)  
 EN ISO 17634-B-T 69T1-1M21/C1- 9C1MV

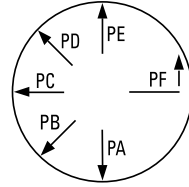
## Applications

- Petrochemical industry
- Pressure vessel

## Features

- Good performance in all positions
- Good heat-resistance(P91 grade steel)

## Welding Position



## Current

DC +

## Shielding Gas

Ar + 20~25% CO<sub>2</sub>  
 100% CO<sub>2</sub>

## Diameter / Packaging

Diameter	Spool			Pac		
	5kg (11lbs)	12.5kg (27.6lbs)	15kg (33lbs)	100kg (221lbs)	200kg (441lbs)	250kg (551lbs)
1.2 (0.045)	√	√	√			
1.6 (1/16)		√	√			

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

C	Si	Mn	Cr	Ni	Mo	V	Nb	N	HDM (ml/100g)
0.09	0.1	0.5	9.0	0.5	1.0	0.2	0.05	0.03	2.01

**Typical Mechanical Properties of All-Weld Metal**

YS MPa(lbs/in <sup>2</sup> )	TS MPa(lbs/in <sup>2</sup> )	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft-lbs)	Condition
560 (81,300)	740 (107,400)	21	20 (68)	30 (22)	SR1: 2h/760°C

**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
80% Ar + 20% CO <sub>2</sub>	20-25 (51/64~1)	10.2 (400)	180~220	24~26	3.4 (7.5)	84~87
		11.5 (450)	230~270	26~28	4.5 (9.9)	85~88
		15.3 (600)	280~320	31~33	5.2 (11.4)	86~88
<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
80% Ar + 20% CO <sub>2</sub>	20-25 (51/64~1)	6.4 (250)	260~300	29~31	4.2 (9.2)	85~88
		7.6 (300)	310~350	31~33	4.8 (10.6)	86~88
		8.1 (320)	330~370	32~33	5.3 (11.7)	87~89

SWAW

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX