

# SC-91

Type : Rutile

## Conformances

AWS A5.36M/ ASME SFA5.36M E621T1-C1A0-G

(AWS A5.29/ ASME SFA5.29 E91T1-GC)

JIS Z3313 T57 2 T1-1 C A-N1 H10

EN ISO 17632-A-T 50 2 1Ni P C 1

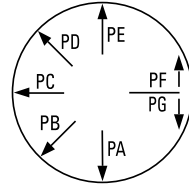
## Applications

- Structural fabrication
- Steel industry

## Features

- Smooth and stable arc with a fast freezing slag
- Pre-heat recommended to avoid cold crack
- High-tensile steel (HSB 600)

## Welding Position



## Current

DC +

## Shielding Gas

100% CO<sub>2</sub>

## Diameter / Packaging

Diameter mm (in)	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	Ni
0.06	0.55	1.20	0.013	0.013	0.85

### 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)
645 (93,600)	660 (95,800)	24.0	0 (32) -20 (-4)	100 (74) 70 (52)

### 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>	25 (1)	<b>All Position</b>				86-88
		4.4 (175)	110-140	23-28	1.6 (3.5)	
		5.1 (200)	120-150	24-29	1.8 (4.0)	
		6.4 (250)	130-160	25-30	2.3 (5.0)	
		7.6 (300)	160-190	25-30	2.7 (6.0)	
		8.9 (350)	170-200	26-31	3.2 (7.0)	
		9.5 (375)	190-220	26-31	3.4 (7.5)	
		10.8 (425)	210-240	27-32	3.8 (8.5)	
		<b>Flat &amp; Horizontal</b>				
		12.1 (475)	230-260	28-33	4.9 (10.8)	
12.7 (500)	240-270	29-34	5.2 (11.4)			
<b>1.4mm (0.052 in) DC+</b>						
100% CO <sub>2</sub>	25 (1)	<b>All Position</b>				86-88
		3.8 (150)	120-150	23-28	1.8 (3.9)	
		4.7 (180)	130-160	24-29	2.2 (4.8)	
		5.7 (225)	160-190	24-29	2.7 (5.9)	
		6.4 (250)	180-210	25-30	2.9 (6.5)	
		6.9 (275)	200-230	25-30	3.2 (7.2)	
		7.6 (300)	220-250	26-31	3.5 (7.8)	
		<b>Flat &amp; Horizontal</b>				
		8.5 (335)	240-270	26-31	4.0 (8.7)	
		9.5 (375)	260-290	27-32	4.4 (9.8)	
10.2 (400)	280-310	27-34	4.7 (10.4)			
<b>1.6mm (1/16 in) DC+</b>						
100% CO <sub>2</sub>	25 (1)	<b>All Position</b>				86-88
		3.8 (150)	170-200	24-29	2.5 (5.5)	
		4.4 (175)	180-210	24-30	2.9 (6.4)	
		5.1 (200)	200-230	25-30	3.3 (7.3)	
		5.7 (225)	230-260	25-31	3.7 (8.2)	
		6.4 (250)	250-280	26-31	4.2 (9.2)	
		6.9 (275)	270-300	26-32	4.6 (10.1)	
		<b>Flat &amp; Horizontal</b>				
		8.3 (325)	300-330	27-32	5.4 (11.9)	
		8.9 (350)	330-360	28-34	5.8 (12.8)	

SMAW

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX