

# SC-81LT

Type : Rutile

## Conformances

AWS A5.36/ ASME SFA5.36 E81T1-C1A6-K2  
(AWS A5.29/ ASME SFA5.29 E81T1-K2C)  
JIS Z3313 T55 6 T1-1 C A-N3 H5  
EN ISO 17632-A-T 46 6 1.5Ni P C1 1 H5  
KR 5Y40SG(C) H5, L3SG(C) H5

ABS 5Y, 5Y400SA H5  
LR 5Y40S H5  
BV SA5Y40M HHH  
DNV-GL VY40MSH5, NV4-4L, VY  
NK KSWL3G(C) H5  
KSW54Y40G(C) H5

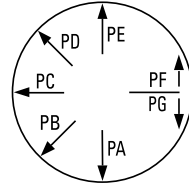
## Applications

- Shipbuilding
- Offshore structure
- Structural fabrication

## Features

- Good impact value at low temperature
- Smooth and stable arc with a fast freezing slag
- Good CTOD value

## Welding Position



## Current

DC +

## Shielding Gas

100% CO<sub>2</sub>

## Diameter / Packaging

Diameter	Spool			Pac		
	12.5kg (28lbs)	15kg (33lbs)	20kg (44lbs)	100kg (221lbs)	200kg (441lbs)	250kg (551lbs)
1.2 (0.045)	✓					
1.4 (0.052)	✓					

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

C	Si	Mn	P	S	Ni
0.04	0.26	1.20	0.010	0.010	1.50

**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)
520 (75,500)	610 (88,600)	28.0	-40 (-40) -60 (-76)	120 (89) 85 (63)

**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)	120-140	23-28	1.6 (3.5)				
		5.1 (200)	130-150	24-29	1.8 (4.0)				
		6.4 (250)	140-160	25-30	2.3 (5.0)				
		7.6 (300)	160-190	25-30	2.7 (6.0)				
		8.9 (350)	190-210	26-31	3.2 (7.0)				
		9.5 (375)	210-230	26-31	3.4 (7.5)				
		10.8 (425)	220-240	27-32	3.8 (8.5)				
		<b>Flat &amp; Horizontal</b>							
		12.1 (475)	240-270	28-33	4.9 (10.8)				
		12.7 (500)	250-280	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)	150-170			24-29	2.2 (4.8)				
5.7 (225)	170-190			24-29	2.7 (5.9)				
6.4 (250)	190-210			25-30	2.9 (6.5)				
6.9 (275)	210-240			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)	250-280			26-31	4.0 (8.7)				
9.5 (375)	280-300			27-32	4.4 (9.8)				
10.2 (400)	290-310			27-34	4.7 (10.4)				

SWAW

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX