

# SF-71R

Type : Rutile

## Conformances

AWS A5.36/ ASME SFA5.36 E71T1-C1A0-CS1 H4

E71T1-C1P0-CS1 H4

(AWS A5.20/ ASME SFA5.20 E71T-1C H4)

JIS Z3313 T49 2 T1-1 C AP H5

EN ISO 17632-A-T 46 2 P C1 1 H5

ABS 3YSA H5, AWS A5.36 E71T1-C1A(P)0-CS1

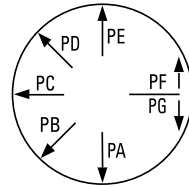
## Applications

- Pipe line
- Offshore structure
- Pressure vessel

## Features

- Good impact value at low temperature (As Welded and PHWT)

## 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
0.05	0.48	1.39	0.010	0.006

## 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 (75,400)	585 (84,825)	28.5	0 (32) -20 (-4)	104 (77) 84 (62)	As Welded
500 (72,500)	570 (82,650)	30.0	0 (32) -20 (-4)	94 (69) 66 (49)	PWHT (620 @2hr)

## 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)	100~130	20~25	1.6 (3.5)				
		5.7 (225)	120~150	21~26	2.0 (4.5)				
		7.0 (275)	130~160	22~27	2.5 (5.5)				
		8.3 (325)	160~190	23~28	2.9 (6.5)				
		8.9 (350)	170~200	24~29	3.2 (7.0)				
		10.2 (400)	200~230	25~30	3.6 (8.0)				
		<b>Flat &amp; Horizontal</b>							
		11.4 (450)	210~240	26~31	4.1 (9.1)				
		12.1 (475)	230~260	27~32	4.3 (9.5)				
		13.3 (525)	250~280	28~33	4.7 (10.4)				
		<b>1.4mm (0.052 in) DC+</b>							
		100% CO <sub>2</sub>	25 (1)	<b>All Position</b>				86-88	
				3.8 (150)	130~160		22~27		1.8 (3.9)
5.1 (200)	140~170			23~28	2.4 (5.2)				
6.4 (250)	160~190			24~29	2.9 (6.5)				
7.6 (300)	180~210			26~31	3.5 (7.8)				
8.9 (350)	200~230			27~32	4.1 (9.1)				
9.5 (375)	220~250			28~33	4.4 (9.8)				
<b>Flat &amp; Horizontal</b>									
10.8 (425)	240~270			30~35	5.0 (11.1)				
12.1 (475)	260~290			31~36	5.6 (12.4)				
12.7 (500)	310~340			32~37	5.9 (13.0)				

SMAW

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX