

# SC-71MSR

Type : Rutile



## Conformances

AWS A5.36/ ASME SFA5.36 E71T1-M21A5-CS2  
 E71T1-M21P5-CS2  
 (AWS A5.20/ ASME SFA5.20 E71T-1M/-9M/-12M-J H4)  
 EN ISO 17632-A-T 46 4 P M21 1 H5  
 ABS 4Y400SA H5  
 LR 4Y40S H5  
 BV SA4Y40M HHH

DNV-GL IVY40MSH5  
 TÜV EN ISO 17632-A - T46 4 P M 1 H5  
 DB DIN EN ISO 17632-A-T 46 4 P M21 2 H5  
 CE  
 CWB CSA W48 E491T-12MJ-H8

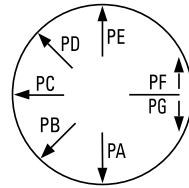
## Applications

- Pipe line
- Offshore structure
- Pressure vessel

## Features

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

## Welding Position



## Current

DC +

## Shielding Gas

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

## Diameter / Packaging

Diameter	Spool			Pac		
	12.5kg (28lbs)	15kg (33lbs)	20kg (44lbs)	100kg (221lbs)	200kg (441lbs)	250kg (551lbs)
mm (in)	12.5kg (28lbs)	15kg (33lbs)	20kg (44lbs)	100kg (221lbs)	200kg (441lbs)	250kg (551lbs)
1.2 (0.045)	√	√	√			

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

C	Si	Mn	P	S	Ni
0.06	0.35	1.24	0.012	0.012	0.45

**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)	
542 (78,600)	577 (83,600)	30.0	-45 (-49) -50 (-58)	81 (60) 64 (47)	As Welded
523 (75,700)	552 (80,000)	33.0	-45 (-49) -50 (-58)	57 (42) 49 (36)	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>							
80% Ar + 20% CO <sub>2</sub>	25 (1)	<b>All Position</b>					86-88
		4.4 (175)	110-140	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	22-27	2.9 (6.5)		
		8.9 (350)	170-200	23-28	3.2 (7.0)		
		10.2 (400)	200-230	24-29	3.6 (8.0)		
		<b>Flat &amp; Horizontal</b>					
		11.4 (450)	210-240	25-31	4.1 (9.1)		
		12.1 (475)	230-260	26-32	4.3 (9.5)		
13.3 (525)	250-280	27-33	4.7 (10.4)				

SWAW  
SAW  
GMAW  
GTAW  
FCAW  
Non-FERROUS  
APPENDIX