

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

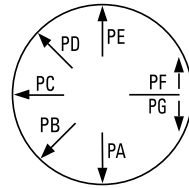
Applications

- 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% CO₂

Diameter / Packaging

Diameter	Spool			Pac		
	12.5kg (28lbs)	15kg (33lbs)	20kg (44lbs)	100kg (221lbs)	200kg (441lbs)	250kg (551lbs)
mm (in)						
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 ²)	TS MPa(lbs/in ²)	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 (%)	
1.2mm (0.045 in) DC+							
80% Ar + 20% CO ₂	25 (1)	All Position					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)		
		Flat & Horizontal					
		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