

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-T46 4 P M 21 2 H5
CE
CWB CSA W48 E491T-12MJ-H8

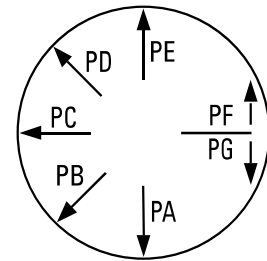
Applications

- 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		
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 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)	81 (60)	As Welded
			-50 (-58)	64 (47)	
523 (75,700)	552 (80,000)	33.0	-45 (-49)	57 (42)	PWHT (620 @2hr)
			-50 (-58)	49 (36)	

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)	