

Supercored 81-K2MAG

Type : Rutile



Conformances

AWS A5.36/ ASME SFA5.36 E81T1-M21A8-K2
 (AWS A5.29/ ASME SFA5.29 E81T1-K2M)
 JIS Z3313 T55 6 T1-1 M A-N3 H5
 EN ISO 17632-A-T 46 6 1.5Ni P M21 2 H5
 ABS 5Y400SA H5
 LR 5Y40S H5
 BV SA5Y40M HHH

DNV-GL VY40MS H5
 RS 5Y42SM H5
 TÜV EN ISO 17632-A - T 46 6 1.5 Ni P M 2
 DB DIN EN ISO 17632-A-T 46 6 1.5 Ni P M 21 2
 CE

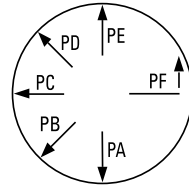
Applications

- Offshore structure
- Shipbuilding

Features

- Good impact value at low temperature
- Smooth arc and low spatter level

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)	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
0.03	0.35	1.25	0.012	0.010	1.55

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)
590 (85,600)	610 (88,500)	27.0	-30 (-22) -60 (-76)	110 (81) 70 (52)

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)				

SMAG

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX