Supercored 70B

Type : Basic

CE

Conformances

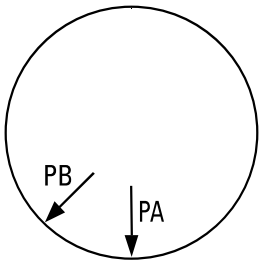
AWS A5.36/ ASME SFA5.36 E71T5-M21A4-CS1 H4
(AWS A5.20/ ASME SFA5.20 E70T-5M-J)
JIS Z3313 T49 4 T5-1 M A-U H5
EN ISO 17632-A-T 42 4 B M21 3 H5
ABS 3YSA H5
LR 3S, 3YS H5
BV SA3YM HHH

DNV·GL IIIYMS H5
TÜV EN ISO 17632-A-T42 4 B M 3 H5
DB EN ISO 17632-A-T42 4 B M21 3 H5
CE

Applications

- Shipbuilding
- Structural fabrication

Welding Position



Features

- Good crack resistance
- Good impact value at low temperature
- Good anti-porosity

Current

DC +

Shielding Gas

Ar + 20~25% CO_2

Diameter / Packaging

Diameter	Spool			Pac		
mm (in)	5kg (11lbs)	15kg (33lbs)	20kg (44lbs)	100kg (221lbs)	200kg (441lbs)	250kg (551lbs)
1.0 (0.040)	√	√	√			
1.2 (0.045)	√	√	√			
1.4 (0.052)	√	√	√			
1.6 (1/16)	√	√	√			

Typical Chemical Composition of All-Weld Metal (%)

C	Si	Mn	P	S
0.06	0.43	1.33	0.011	0.013

Typical Mechanical Properties of All-Weld Metal

YS MPa(lbs/in²)	TS MPa(lbs/in²)	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft·lbs)
450 (65,300)	520 (75,400)	32.0	-40 (-40)	78 (58)

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)	4.5 (175)	120~160	17~22	1.5 (3.3)	86~88
		6.4 (250)	135~175	18~24	2.2 (4.8)	
		7.6 (300)	150~180	19~25	2.5 (5.5)	
		8.9 (350)	175~205	22~27	3.0 (6.6)	
		10.2 (400)	185~220	24~29	3.5 (7.6)	
		11.5 (450)	220~260	25~30	3.8 (8.4)	
		12.8 (500)	250~290	26~31	4.4 (9.6)	
		15.3 (600)	280~320	27~32	5.3 (11.6)	
1.4mm (0.052 in) DC+						
80% Ar + 20% CO_2	25 (1)	3.8 (150)	130~170	19~24	1.9 (4.1)	86~89
		5.1 (200)	160~200	20~25	2.5 (5.5)	
		6.4 (250)	180~230	21~27	3.0 (6.6)	
		7.6 (300)	220~260	22~28	4.2 (9.2)	
		10.2 (400)	270~320	26~31	5.5 (12.1)	
		12.8 (500)	300~350	27~33	6.0 (13.2)	
1.6mm (1/16 in) DC+						
80% Ar + 20% CO_2	25 (1)	3.2 (125)	170~210	21~24	2.0 (4.4)	86~89
		3.8 (150)	180~220	22~25	2.5 (5.5)	
		5.1 (200)	220~260	24~28	3.2 (7.0)	
		6.4 (250)	270~320	25~31	4.0 (8.8)	
		7.6 (300)	300~350	27~33	5.0 (11.0)	
		10.2 (400)	350~400	33~37	6.4 (14.0)	