

Supercored 71H

Type : Rutile

Supercored 71H



Conformances

AWS A5.20/ ASME SFA5.20 E71T-1C/-9C/-9C-J
JIS Z3313 T49 4 T1-1 C A H5
EN ISO 17632-A T42 4 P C 1 H5
KR 4YSMG(C) H10, 3SMG(C) H10 / 3YSMG(C) H10
ABS 4YSA H10, 3YSA H10
LR 4YS H10
BV SA4YM HH, SA3YM HH
DNV IVYSM H5, IIIYMS H5
GL 4YS H10, 3YS H10

NK KSW54G(C) H10
KSW53G(C) H10
TÜV EN ISO 17632-A - T 42 4 P C 1
CWB CSA W48 E491T-9J-H8
CE
DB DIN EN ISO 17632-A-T 42 4 P C 1
CCS 3YSM H10, 4YSM H10
RINA 3YS H10
RS 4Y40SM H5, 3Y40SM H5
NAKS

Applications

- Shipbuilding
- Offshore Structure
- Structural fabrication
- Pressure vessels

Features

- Low temperature service steel
- Designed for welding with 100% CO₂ shielding gas
- Smooth and stable arc with a fast freezing slag

Welding Position



1G 2F 3G 4G
(PA) (PB) (PF-PG) (PE)

Current

DC +

Shielding Gas

100% CO₂

Diameter / Packaging

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

Typical Chemical Composition of All-Weld Metal (%)

C	Si	Mn	P	S	Ni
0.03	0.46	1.36	0.008	0.011	0.40

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)
550 (79,900)	570 (82,800)	27.0	-30 (-22) -40 (-40)	90 (66) 60 (44)

Typical Operating Procedures

Diameter, Polarity Shielding Gas	CTWD mm (in)	Wire Feed Speed m/min (in/min)	Voltage (volts)	Approx. Current (amps)	Deposition Rate kg/hr (lb/hr)	Efficiency (%)
1.2mm (0.045 in) DC+						
100% CO ₂	25 (1)	All Position				85-88
		4.3 (175)	20-25	100-130	1.6 (3.5)	
		5.6 (220)	21-26	120-150	2.0 (4.5)	
		7.0 (275)	22-27	130-160	2.5 (5.5)	
		8.3 (325)	23-28	160-190	2.9 (6.5)	
		8.9 (350)	24-29	170-200	3.2 (7.0)	
		10.2 (400)	25-30	200-230	3.6 (8.0)	
		Flat & Horizontal				
		11.4 (450)	26-31	210-240	4.1 (9.1)	
		12.1 (475)	27-32	230-260	4.3 (9.5)	
13.3 (525)	28-33	250-280	4.7 (10.4)			
1.4mm (0.052 in) DC+						
100% CO ₂	25 (1)	All Position				86-88
		3.8 (150)	22-27	130-160	1.8 (3.9)	
		5.1 (200)	23-28	140-170	2.4 (5.2)	
		6.4 (250)	24-29	160-190	2.9 (6.5)	
		7.6 (300)	26-31	180-210	3.5 (7.8)	
		8.9 (350)	27-32	200-230	4.1 (9.1)	
		9.5 (375)	28-33	220-250	4.4 (9.8)	
		Flat & Horizontal				
		10.8 (425)	30-35	240-270	5.0 (11.1)	
		12.1 (475)	31-36	260-290	5.6 (12.4)	
12.7 (500)	32-37	310-340	5.9 (13.0)			
1.6mm (1/16 in) DC+						
100% CO ₂	25 (1)	All Position				86-88
		3.8 (150)	21-27	180-210	2.5 (5.5)	
		4.4 (175)	23-28	220-250	2.9 (6.4)	
		5.1 (200)	24-29	260-290	3.3 (7.3)	
		5.7 (225)	25-31	280-300	3.7 (8.2)	
		6.4 (250)	27-34	300-330	4.2 (9.2)	
		7.6 (300)	29-36	330-360	5.0 (11.0)	
		Flat & Horizontal				
		8.3 (325)	31-38	360-390	5.4 (11.9)	
		8.9 (350)	32-39	390-420	5.8 (12.8)	
11.4 (450)	34-39	420-450	7.5 (16.5)			