

Supercored 81

Type : Rutile

Conformances

AWS A5.36/ ASME SFA5.36 E81T1-C1A2-Ni1
 (AWS A5.29/ ASME SFA5.29 E81T1-Ni1C)
 JIS Z3313 T55 3 T1-1 C A-N2-U H10
 EN ISO 17632-A-T 46 2 1Ni P C 1

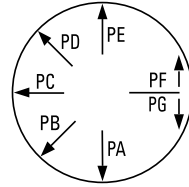
Applications

- Machinery
- Structural fabrication
- Storage tank
- Bridge construction

Features

- Good arc performance and low spatter
- Easy to remove slag
- Good impact value

Welding Position



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)
1.0 (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	Ni
0.03	0.35	1.25	0.011	0.012	0.95

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)
570 (82,700)	640 (92,900)	25	-30 (-22)	90 (66)

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+						
100% CO ₂	25 (1)	4.5 (175)	120~160	18~23	1.5 (3.3)	86~88
		6.4 (250)	135~175	19~25	2.2 (4.8)	
		7.6 (300)	150~180	20~26	2.5 (5.5)	
		8.9 (350)	175~205	23~28	3.0 (6.6)	
		10.2 (400)	185~220	25~30	3.5 (7.6)	
		11.5 (450)	220~260	26~31	3.8 (8.4)	
		12.8 (500)	250~290	27~32	4.4 (9.6)	
15.3 (600)	280~320	28~33	5.3 (11.6)			
1.4mm (0.052 in) DC+						
100% CO ₂	25 (1)	3.8 (150)	130~170	20~25	1.9 (4.1)	85~88
		5.1 (200)	160~200	21~26	2.5 (5.5)	
		6.4 (250)	180~230	22~28	3.0 (6.6)	
		7.6 (300)	220~260	23~29	4.2 (9.2)	
		10.2 (400)	270~320	27~32	5.5 (12.1)	
		12.8 (500)	300~350	28~34	6.0 (13.2)	
1.6mm (1/16 in) DC+						
100% CO ₂	25 (1)	3.2 (125)	170~210	22~25	2.0 (4.4)	84~87
		3.8 (150)	180~220	23~26	2.5 (5.5)	
		5.1 (200)	220~260	25~29	3.2 (7.0)	
		6.4 (250)	270~320	26~32	4.0 (8.8)	
		7.6 (300)	300~350	28~34	5.0 (11.0)	
		10.2 (400)	350~400	34~38	6.4 (14.0)	