

SW-2209 Cored

Type : Rutile

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Conformances

AWS A5.22 / ASME SFA5.22 E2209T1-1/-4
 JIS Z3323 TS2209-FB1
 EN ISO 17633-A-T 22 9 3 N L M/C 2

BV UP (KV -20°C ≥41 J)
 DNV Duplex Stainless Steel

Applications

- Duplex stainless steel (NAS 329J3L, UNS S31803)

Features

- Good performance in all positions

Welding Position



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

Current

DC +

Shielding Gas

100% CO₂
 Ar + 20~25% CO₂

Typical Chemical Composition of All-Weld Metal (%)

	C	Si	Mn	P	S	Cr	Ni	Mo	N	PREN
100% CO ₂	0.03	0.70	1.00	0.02	0.01	23.2	8.4	0.05	0.10	36
80% Ar + 20% CO ₂	0.03	0.80	1.10	0.02	0.01	23.5	8.5	0.05	0.10	36

Typical Mechanical Properties of All-Weld Metal

	TS Mpa(lbs/in ²)	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft.-lbs)	Ferrite Number
100% CO ₂	820 (118,900)	26	-20 (4)	50 (37)	50-55
			-50 (-58)	30 (22)	
80% Ar + 20% CO ₂	840 (121,800)	25	-20 (4)	55 (41)	50-55
			-50 (-58)	30 (22)	

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)
1.2mm (0.045 in) DC+					
100% CO ₂	20 (4/5)	6.5 (256)	23-26	140	2.6 (5.7)
		9.8 (386)	27-30	180	3.8 (8.4)
		12.5 (492)	28-31	210	4.9 (10.8)
80% Ar + 20% CO ₂	20 (4/5)	6.5 (256)	23-26	140	2.8 (6.2)
		9.5 (374)	27-30	180	4.0 (8.8)
		12.0 (472)	27-30	210	5.0 (11.0)
1.6mm (1/16 in) DC+					
100% CO ₂	25 (1)	3.6 (142)	24-27	180	3.0 (6.6)
		6.5 (256)	25-28	250	4.5 (9.9)
		9.0 (354)	26-29	290	5.3 (11.7)
80% Ar + 20% CO ₂	25 (1)	3.5 (138)	24-27	180	3.2 (7.1)
		6.4 (252)	25-28	250	4.8 (10.6)
		8.9 (350)	26-29	290	5.5 (12.10)

Diameter / Packaging

Diameter mm (in)	Spool			Pac		
	5kg (11lbs)	12.5kg (27.6lbs)	15kg (33lbs)	250kg (551lbs)	300kg (661lbs)	350kg (771lbs)
0.9 (0.035)	✓	✓	✓			
1.2 (0.045)	✓	✓	✓			
1.6 (1/16)		✓	✓			