

S-9016.B3R

Type : Basic

Conformances

AWS A5.5/ ASME SFA5.5 E9016-B3
 JIS Z3223 E6216-2C1M
 EN 1599 - ECrMo2 B 1 2 H5
 ABS AWS A5.5 E9016-B3 (-30°C ≥27 J)

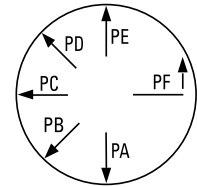
Applications

- Pressure vessels
- Powder plant
- Low alloy steel (2.25%Cr-1.0%Mo)

Features

- Fire-coal Energy plant, Oil refinery, High temperature/ chemical facility
- 2.25% Cr-1.0% Mo Steel welding
- Relevant elements P, Sn, As and Sb controlled (X-Factor ≤15ppm)
- Low-Hydrogen electrode (HDM ≤5ml/100g)
- Good impact value at low temperature

Welding Position



Current

AC or DC+

Redrying Conditions

350~400°C (662~752°F) X
 0.5~1hr

Diameter / Packaging

Diameter	Length	Standard		Vacuum		Steel can	
		packet 5kg(11lbs)	carton 20kg(44lbs)	packet 5kg(11lbs)	carton 20kg(44lbs)	packet 4.5Kg(9.9lbs)	carton 18Kg(40lbs)
2.6 (3/32)	350 (14)		✓		✓		✓
3.2 (1/8)	350 (14)		✓		✓		✓
4.0 (5/32)	400 (16)		✓		✓		✓
5.0 (3/16)	400 (16)		✓		✓		✓

SMW

SAW

GMW

GTAW

FCW

Non-FERROUS

APPENDIX

Typical Chemical Composition of All-Weld Metal (%)

C	Si	Mn	P	S	Cr	Mo	Sb	X-factor
0.09	0.46	0.83	0.011	0.004	2.35	0.98	0.001	13ppm

$$\text{X-factor} = (10\text{P} + 5\text{Sb} + 4\text{Sn} + \text{As})/100 \leq 15 \text{ (ppm)}$$

Typical Mechanical Properties of All-Weld Metal

YS MPa(lbs/in ²)	TS MPa(lbs/in ²)	EL (%)	CVN-Impact Value J (ft·lbs)			Heat Treatment
			0°C (32°F)	-20°C (-4°F)	-30°C (-22°F)	
675 (97,900)	759 (110,000)	23.2	139 (103)	116 (86)	103 (76)	690°C(1274°F) X 1hr
623 (90,400)	680 (98,600)	22.4	145 (107)	111 (82)	108 (80)	690°C(1274°F) X 8hr

Typical Welding Parameters / Amp.(A)

Diameter mm (in)	2.6 (3/32)	3.2 (1/8)	4.0 (5/32)	5.0 (3/16)
Length mm (in)	350 (14)	350 (14)	400 (16)	400 (16)
F & HF	55-90	90-130	130-180	190-240
V-up, OH	50-80	80-120	120-170	-