

S-8016.B2R

Type : Basic

Conformances

AWS A5.5/ ASME SFA5.5 E8016-B2
JIS Z3223 E5516-1CM
EN 1599-ECrMo1 B 1 2 H5
ABS AWS A5.5 E8016-B2 (-30°C ≥27 J)

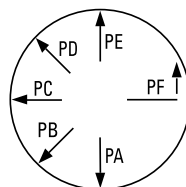
Applications

- Pressure vessels
- Powder plant
- Low alloy steel (1.25%Cr-0.5%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 mm (in)	Length mm (in)	Standard		Vacuum		Steel can	
		packet	carton	packet	carton	packet	carton
		5kg(11lbs)	20kg(44lbs)	5kg(11lbs)	20kg(44lbs)	4.5Kg(9.9lbs)	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)	✓		✓		✓	

SWAW

SAW

GMW

GTAW

FCW

Non-FERROUS

APPENDIX

Typical Chemical Composition of All-Weld Metal (%)

C	Si	Mn	P	S	Cr	Mo	Sb	X-factor
0.07	0.48	0.66	0.01	0.004	1.24	0.53	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)	
628 (91,100)	721 (104,600)	23.4	175 (129)	155 (114)	79 (58)	690°C(1274°F) X 1hr
491 (71,200)	591 (85,700)	28.8	225 (166)	203 (150)	183 (135)	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	-