

S-9018.B3R

Type : Basic

Conformances

AWS A5.5/ ASME SFA5.5 E9018-B3
JIS Z3223 E6218-2C1M
EN 1599 - ECrMo2 B 3 2 H5

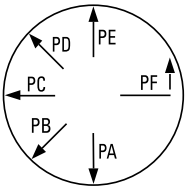
Applications

- Low alloy steel (2.25%Cr-1%Mo)

Features

- Relevant elements P, Sn, As and Sb controlled (X-Factor $\leq 15\text{ppm}$)
- Low-Hydrogen electrode (HDM $\leq 5\text{ml}/100\text{g}$)
- Iron powder type electrode (high efficiency)
- Good impact value at low temperature

Welding Position



Current

AC, DC $\pm$

Redrying Conditions

350~400°C (662~752°F) X
0.5~1hr

Diameter / Packaging

Diameter	Length	Standard		Vacuum				P.V.C	
		packet	carton	packet	carton	packet	carton	packet	carton
mm (in)	mm (in)	5kg(11lbs)	20kg(44lbs)	1.5kg(3.3lbs)	15kg(3.3lbs)	5kg(11lbs)	20kg(44lbs)	5kg(11lbs)	20kg(44lbs)
2.6 (3/32)	350 (14)			✓		✓		✓	
3.2 (1/8)	350 (14)			✓		✓		✓	
4.0 (5/32)	400 (16)			✓		✓		✓	
5.0 (3/16)	400 (16)			✓		✓		✓	

Typical Chemical Composition of All-Weld Metal (%)

C	Si	Mn	P	S	Cr	Mo	Sn	As	Sb	X-factor
0.072	0.62	0.79	0.009	0.010	2.22	0.97	0.0060	0.0020	0.0070	13.1ppm

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

Typical Mechanical Properties of All-Weld Metal

YS MPa(lbs/in²)	TS MPa(lbs/in²)	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft.lbs)	Heat Treatment
632 (91,700)	721 (104,600)	23.8	0 (32) -20 (-4)	121 (89) 81 (60)	690°C(1274°F) X 1hr. S.R
606 (87,900)	703 (102,000)	25.2	0 (32) -20 (-4)	132 (97) 105 (77)	690°C(1274°F) X 2hr. S.R

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	130-190	190-240
V-up, OH	50-80	80-120	120-180	-

SMW

SAW

GMW

GTAW

FCAW

Non-FERROUS

APPENDIX