

# SM-9018-B3

SMAW ELECTRODE - LOW ALLOY, LOW HYDROGEN

## CLASSIFICATIONS :

AWS A5.5 E9018-B3  
ASME SFA A5.5 E9018-B3  
JIS Z 3223 E6218-2C1M  
BS EN ISO 3580-A E CrMo2 B 3 2

## DESCRIPTION

SM-9018-B3 is an iron powder low hydrogen electrode designed for welding creep resistant boiler, plates and tubes. The electrode can provide reliable creep rupture properties for the whole service life of a boiler plant. Thanks to its high working efficiency contributed from iron powder, SM-9018-B3 is suitable for welding thick pipes and steel casting and gets good weldability in all position.

## FEATURES

Smoother arc transfer, Easier slag removal, Less Spatter.  
Excellent usability in all positions welding including vertical down.  
Suitable for butt and fillet welding of thin plates/sheets.  
Smooth and bright weld seams, Smoother with a finer ripple bead surface.  
Stable arc on AC and DC.

## APPLICATIONS

As its weld metal contains 2.25%Cr-1%Mo, SR-98B2 is suitably applied for ASTM A335 Gr. P22; A217 Gr. WC 9.

## CHEMICAL COMPOSITION

	%C	%Mn	%Si	%P	%S
Requirements	0.05 - 0.12	0.9 max	0.8 max	0.030 max	0.030 max
Typical Results	0.05	0.53	0.24	0.01	0.01
	%Ni	%Cr	%Mo	Additional Elements	
Requirements	-	2.00 - 2.50	0.90 - 1.20	-	
Typical Results	0.02	2.02	0.93	-	

## MECHANICAL PROPERTIES

	Tensile Strength, Mpa	Yield Strength, Mpa	Elongation, %
Requirements	620 min	530 min	17 min
Typical Results	692	629	25

## OPERATING PROCEDURES

Polarity	Current (Amps)				
	Ø2.0 mm	Ø2.6 mm	Ø3.2 mm	Ø4.0 mm	Ø5.0 mm
AC	50 - 80	75 - 115	110 - 140	160 - 200	205 - 260
DC ±	45 - 75	70 - 105	100 - 135	145 - 180	185 - 235

## WELDING POSITION



## NOTE

1. Rebake the electrodes at 350 ~ 400°C for 60 minutes and keep at 100 ~ 150°C before use.
2. Proper preheat at 200 ~ 350°C and PWHT at 680 ~ 730°C.

**SPECIAL METAL KOREA CO., LTD.**

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