SM-7018

SMAW ELECTRODE - MILD STEEL, LOW HYDROGEN

CLASSIFICATIONS :

AWS A5.1	**E7018-1**
ASME SFA A5.1	**E7018-1**
JIS Z 3211	**E4918**
BS EN ISO 2560-A	**E 42 5 B 32 H5**

DESCRIPTION

SM-7018 is an iron powder extra-low hydrogen type covered electrode to be used in all-position welding of 400-490N/mm^2 high tensile steel for low-temperature application. It provides excellent notch toughness at low-temperatures and good usability .

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

It is especially suitable for nuclear power stations, petroleum chemical plants, and heavy steel plates.
Maintenance or repair welding.

CHEMICAL COMPOSITION

	%C	%Mn	%Si	%P	%S
Requirements	0.15 max	1.60 max	0.75 max	0.035 max	0.035 max
Typical Results	0.04	0.66	0.18	0.01	0.01
	%Ni	**%Cr**	**%Mo**	**%V**	**Comb. Limit**
Requirements	0.30 max	0.20 max	0.30 max	0.08 max	1.75 max
Typical Results	0.02	0.03	0.003	-	0.09

MECHANICAL PROPERTIES

	Tensile Strength, Mpa	Yield Strength, Mpa	Elongation, %
Requirements	490 min	400 min	22 min
Typical Results	604	518	28

OPERATING PROCEDURES

	Current (Amps)				
Polarity	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

Electrodes that have become damp should be re-dried at 300-350 ˚C for 1 hour before welding, do not dry twice to avoid detachment of covering.