SM-6030

SMAW ELECTRODE - NICKEL ALLOY

CLASSIFICATIONS :
AWS A5.11 ENiCrMo-11
ASME SFA A5.11 ENiCrMo-11
BS EN ISO 14172 E Ni 6030

DESCRIPTION

The chemically basic flux is extruded onto a high purity nickel chromium core wire. The flux contains the remaining alloying elements together with alloys for deoxidation and grain refinement.
The blend of silicates used during electrode production ensure both coating strength and resistance to subsequent moisture absorption.

FEATURES

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

Typical specifications for the NiCrMo alloys to be welded include:
ASTM B581, B582, B619, B622 and B626 all of which have the UNS N06030.

CHEMICAL COMPOSITION

	%C	%Mn	%Fe	%P	%S	%Si	%Cu	%Ni
Requirements	0.03 max	1.5 max	13.0 - 17.0	0.04 max	0.02 max	1 max	1 - 2.4	Rem
Typical Results	0.02	0.92	15	0.01	0.01	0.3	1.55	45.07
	%Co	**%Al**	**%Ti**	**%Cr**	**% Nb + Ta**	**%Mo**	**%W**	**Other**
Requirements	5.0 max	-	-	2.8 - 31.5	0.3 - 1.5	4.0 - 6.0	-	0.5 max
Typical Results	0.78			28.66	0.344	4.83	2.31	0.2

MECHANICAL PROPERTIES

	Tensile Strength, Mpa	Yield Strength, Mpa	Elongation, %
Requirements	585 min	-	25 min
Typical Results	650		31

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

1. Rebake the electrodes at 316 ~ 371°C for 1 hour and keep it at 121 ~ 204°C prior to use.
2. Clean off dust or oil from the welding area
3. Follow the recommended welding parameters to achieve good sound welds
4. Use a grinding machine, chipping hammer and wire brush to remove slag.