

DESCRIPTION

It is the superlative resistant standard cobalt base alloys. It deposits a Co-Cr-Ni-Mo alloys. It has good toughness even at high temperature. Also has great oxidation resistance along with repeated thermal cycle resistance.

ALLOY BASIS

C	Si	Cr	Ni	Fe	Mo	Co
0.25	1	27	2.5	<3	5	Bal

APPLICATIONS

Hot forming dies, hot working tools pump shafts, high pressure – high temperature scature valves, valves seats, mixer blades, mill cutters, pump mill screws, gas turbine, forging bottom dies, trimming dies etc.

PROCEDURE

Prepare weld groove using SUNALLOY 109, grind surfaces to remove hard spots. Clean weld area thoroughly. Ensure electrodes are completely dry. Preheat to 200° – 500° C is advisable, particularly on heavier sections. Weld using a “short” arc procedure with the electrode almost vertical. A “touch” technique can be used for horizontal welding. Weaving should be limited to about 5 times electrode size. Where deposits of more than 3 or 4 layers are required, buffer layers using SUNALLOY 601 or SUNALLOY 108 should be used. De-slag completely before over-welding.

MECHANICAL PROPERTIES

Hardness	:	(As weld) – 30 – 34 HRC (Word-hardened) – 48 HRC
Structure	:	Carbides in an austenitic matrix
Machinability	:	Difficult

TECHNICAL DATA & WELDING PARAMETERS

Size (diameter)/length (mm)	:	2.50 x 350	3.15 x 350	4.00 x 350	5.00 x 350
Current (amps)	:	50 - 90	90 - 120	110 - 140	140 - 180
Current	:	AC/DC (+)			