DIFFUSION
Innovative superconditioning solutions

DIE-BUILD-N

DESCRIPTION:

A basic coated electrode which deposits a rich Cr-Ni-Mo-V weld metal containing lower carbon but otherwise similar to 55 Ni Cr Mo V2. It is excellent for building up the working face of composite hot forging Dies, both large as well as small. The deposit has excellent wear resistance at elevated temperature (upto 650^0C), very good hot strength and thermal shock resistance. The deposit shows fairly good machinability. The as welded hardness is 40 – 45 HRC. Post weld heat treatment can control the hardness as required between 35 – 40 HRC by using a suitable reheating temperature.

Applications:

DIE-BUILD –N has a special chemistry that makes it eminently suitable for the reclamation of repairing all types of hot dies, equally useful for small patch work as well as extensive repairs.

Procedure:

Ensure that the electrodes are totally dry. Remove fatigued / work hardened loose material, by using gouging electrode or by grinding. Heat the base metal up to 200^0C to 300^0C. Use stringer beads, particularly on heavier sections. Weld using short arc procedure, weaving should be limited to three times the diameter of the electrode. Peening of weld deposit is essential. Post weld heat treatment can control the hardness as required between 35 – 40 HRC by using reheating temperature between 450^0C to 650^0C.

Technical data	:	**DIE-BUILD-N**		
Size (mm)	:	3.15	4.00	5.00
Recommended Welding Current (Amps)	:	80 – 110	100 – 140	130 - 170
Tensile Strength	:	120 kgf / mm^2		
Hardness (as welded)	:	45 – 48 HRC		
Tip Colour	:	Red		

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