

SUNALLOY 517

Electrode with high speed steel deposit



DESCRIPTION

Basic electrode with excellent characteristics. The beads are fine-drawn and regular. The slag can be easily removed. The deposit is high quality tool steel; tough, hard, wear and oxidation resistant, free from cracks and porosities.

ALLOY BASIS

Fe, Mo, Cr, W, V, C

APPLICATIONS

For the repair and manufacture of cold and hot cutting tools, turning knives, trimming dies, broaches, punching tools, drills, milling tools, hot dies, etc.

PROCEDURE

Preheat larger and intricate section between 300-600°C and maintain the same during welding. Smaller jobs need not be preheated since the arc temperature does the needful. Clean slag between beads and peen to reduce residual stresses for heavy deposits. Use SUNALLOY 601 as a cushioning alloy. Limit the buildup up to maximum 15mm. Slow cool the job using an oven or asbestos.

TECHNICAL DATA

Hardness as welded : 59 - 61 HRC
After heat treatment : 62 - 64 HRC
After annealing : 25 - 30 HRC

HEAT TREATMENT DATA

Annealing : 4 hours at 82°C
Hardening : 1180 – 1230 °C quenching in oil
Tempering : 2 hours at 540 – 560 °C

WELDING PARAMETERS

Size (diameter)/length (mm) :	2.50 x 350	3.15 x 350	4.00 x 350	5.00 x 350
Current (amps) :	70 - 90	90 - 140	140 - 180	180 - 230
Current :	AC/DC (+)			