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COR™FORGE F40 FC

DESCRIPTION

COR™FORGE F40 is a flux-cored, chrome-nickel-moly, iron base alloy designed for forging die applications. The welding characteristics allow flood welding and continuous multiple passes.

APPLICATIONS

F40 is typically used to repair and rebuild die impressions, and to overlay punches and inserts. It can also be used as an underlay in press die applications.

PROCEDURE

A minimum preheat/interpass temperature of 800°F is recommended for forging dies. Post heat at 800°F for 3 hours after welding, and then allow the deposit to cool below 200°F. Temper at 1050°F for 1 hour/inch thickness. Preheat and post heat according to the base material for all other applications.

WELDING PARAMETERS

Type	Size	Volts	Amps	Shielding Gas/Flux
FC-G	.045”	18-20	150-200	100% CO_2 or Ar-CO_2 mixtures
FC-G	1/16”	23-25	200-400	100% CO_2 or Ar-CO_2 mixtures
FC-G	3/32”	29-31	350-600	100% CO_2 or Ar-CO_2 mixtures
FC-G	1/8”	30-32	450-650	100% CO_2 or Ar-CO_2 mixtures

Submerged arc wires are available in 1/16”-3/16”; Use a neutral flux.

MECHANICAL PROPERTIES AFTER 1050°F TEMPER, 10 HOURS

Hardness:	38-43 Rc
Tensile:	182,000 psi
Yield:	160,000 psi
Elongation:	13%
R.A.:	42%

CLASSIFICATION

Chrome-Nickel-Moly Iron base alloy