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## COR™FORGE F40 FC

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### DESCRIPTION

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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

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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

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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

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Type	Size	Volts	Amps	Shielding Gas/Flux
FC-G	.045"	18-20	150-200	100% CO <sub>2</sub> or Ar-CO <sub>2</sub> mixtures
FC-G	1/16"	23-25	200-400	100% CO <sub>2</sub> or Ar-CO <sub>2</sub> mixtures
FC-G	3/32"	29-31	350-600	100% CO <sub>2</sub> or Ar-CO <sub>2</sub> mixtures
FC-G	1/8"	30-32	450-650	100% CO <sub>2</sub> or Ar-CO <sub>2</sub> mixtures

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

### MECHANICAL PROPERTIES AFTER 1050°F TEMPER, 10 HOURS

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

### CLASSIFICATION

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Chrome-Nickel-Moly Iron base alloy