

## COR™FORGE F15 FC

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### DESCRIPTION

COR™FORGE F15 FC is a flux-cored, chrome-nickel-moly, iron base alloy designed for underlaying, primarily in the repair and reclamation of forging dies. The welding characteristics facilitate flood welding and continuous multipassing.

### APPLICATIONS

In addition to forging applications, F15 FC is an excellent plant maintenance alloy, providing 125,000 psi tensile strength fabricating welds, i.e. repair of heavy equipment. The undiluted weld deposits are fully machinable.

### 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
MC-G	.045"	18-20	150-200	CO <sub>2</sub> or Ar-CO <sub>2</sub> mixtures
FC-G	.045"	23-28	150-250	CO <sub>2</sub> or Ar-CO <sub>2</sub> mixtures
FC-G	1/16"	23-25	200-300	CO <sub>2</sub> or Ar-CO <sub>2</sub> mixtures
FC-G	3/32"	29-31	450-650	CO <sub>2</sub> or Ar-CO <sub>2</sub> mixtures
FC-G	1/8"	28-32	500-800	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

Hardness: 15-20 Rc  
 Tensile: 115,000 psi  
 Yield: 90,000 psi  
 Elongation: 25%  
 R.A.: 68%

### CLASSIFICATION

Chrome-Nickel-Moly Iron base alloy