

COR™FORGE F111 ELECTRODE

DESCRIPTION

COR™FORGE F111 is a nickel based alloy designed for wearfacing. F111 is alloyed with chromium, molybdenum, and tungsten for corrosion and oxidation resistance at elevated temperatures. It maintains its hardness at “red” temperatures, and the low carbon content ensures resistance to thermal shock and fatigue.

APPLICATIONS

F111 is often used for hardfacing and build-up of high temperature tools, and also provides excellent underlay support for overlays such as Cor-Met F115. F111 is also used to join and repair heat treat baskets and other high stainless alloys that are susceptible to hot tearing when joined with a matching filler metal.

PROCEDURE

Preheat according to base material: 350°F for low alloy steels; 600°F minimum for heat treatable steels. Apply F111 with stringer beads, or a slight weave. Mild steel bases do not require post-weld heat treatment. Temper according to the base material if it is a heat treatable steel.

WELDING PARAMETERS

Size	3/32"	1/8"	5/32"	3/16"	1/4"
Amps	75-100	105-130	145-160	180-200	240-260

MECHANICAL PROPERTIES

Hardness: <20 Rc as welded
 35+ Rc peened
 Tensile Strength: 100,000 psi
 Elongation: 30%

CLASSIFICATION

Modification of AWS A5.11, class ENiCrMo-4