

COR™FORGE F111 FC

DESCRIPTION

COR™FORGE F111 FC is a flux-cored, nickel base alloy designed for wearfacing. F111 FC 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. This alloy has proven to resist cracking at higher temperatures than F110 FC.

APPLICATIONS

F111 FC is often used for hardfacing and build-up of high temperature tools, and also provides excellent underlay support for overlays such as Cor-Met F114, F115 and F116.

PROCEDURE

Preheat according to base material: 350°F for low alloy steels; 600°F minimum for heat treatable steels. Apply F111 FC 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

Type	Size	Volts	Amps	Stickout	Shielding Gas
FC-G	.045”	23-26	160-200	1/2”	75Ar-25CO ₂
FC-G	1/16”	24-26	180-240	3/4”	75Ar-25CO ₂
FC-G	3/32”	24-26	250-350	3/4”	75Ar-25CO ₂

MECHANICAL PROPERTIES

Hardness: <20 Rc as welded
 35+ Rc peened

CLASSIFICATION

Modification of AWS A5.11, class ENiCrMo-4