

COR™BALT 21 FC

DESCRIPTION

COR™BALT 21 FC is a flux-cored, cobalt base alloy designed for resistance to impact, thermal fatigue, and corrosion at temperatures up to 1500°F. 21 FC is not used for severe abrasion applications, but the weld deposit exhibits superior resistance to heat checking, spalling, chipping, and erosion.

APPLICATIONS

Typical hot work applications include: impressions in forging dies, trimming dies, high temperature valves, punches, shear blades, and extrusion dies. 21 FC is also used to overlay parts subject to oxidizing and reducing atmospheres at temperatures up to 2100°F.

PROCEDURE

A minimum preheat of 350°F is recommended for mild steels. Preheat all other alloys according to the base material.

WELDING PARAMETERS

Size	Volts	Amps	Stickout	Shielding Gas/Flux
MC-G .035"	16	100	1/2"	CO ₂ or Ar-CO ₂ mixture
MC-G .045"	18-30	150-250	1/2"	CO ₂ or Ar-CO ₂ mixture
MC-G 1/16"	20-30	180-280	1/2"	CO ₂ or Ar-CO ₂ mixture
FC-O 1/16"	21-23	200-250	1 1/2"	Self Shielded
FC-O 1/16"	24-26	225-275	1 1/2"	Self Shielded
FC-O 3/32	24-26	275-325	1 1/2"	Self Shielded
FC-S 3/32"	28-30	275-325	1"	Lincoln 880
FC-S 1/8"	29-31	375-425	1"	Lincoln 880

MECHANICAL PROPERTIES

30-35 Rc as welded, 40+ Rc work hardened

CLASSIFICATION

AWS A5.21, ERCCoCr-E