



**SPECIALTY CORED WIRE
AND COATED ELECTRODES**

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COR™BALT 12 FC

DESCRIPTION

COR™BALT 12 FC is a flux-cored, cobalt base wearfacing alloy designed for abrasion and corrosion resistance at elevated temperatures. 12 FC is richer in carbon and tungsten than COR™BALT 6 FC, but not as rich as COR™BALT 1 FC. The result is a medium-high hardness. 12 FC weld deposits display chrome carbides for abrasion resistance, tungsten for high temperature strength, and the high chromium level provides corrosion and oxidation resistance. Welded deposits have a low coefficient of friction, and will develop a high polish in service.

APPLICATIONS

Typical wearfacing uses include: valve overlays, thrust washers, press hammer ways, rail mill and rolling guides, skulling hooks, cams, brake drums, and engine parts.

PROCEDURE

A minimum preheat of 350°F is recommended for mild steels. Preheat all other alloys according to the base material. In general, higher preheats will further assist in the prevention of weld deposit cracking.

WELDING PARAMETERS

Size	Volts	Amps	Stickout	Shield Gas/Flux
MC-G .035"	16-25	60-120	1/2"	CO ₂ or Ar-CO ₂ mixtures
MC-G .045"	16-30	120-250	1/2"	CO ₂ or Ar-CO ₂ mixtures
MC-G 1/16"	18-30	150-250	1/2"	CO ₂ or Ar-CO ₂ mixtures
FC-O 1/16"	24-26	160-200	1 1/4"	none
FC-O 3/32	24-26	275-325	1 1/2"	none
FC-S .045"-3/32"				Lincoln 880

MECHANICAL PROPERTIES

45-50 Rc as welded

CLASSIFICATION

AWS A5.21, ERCCoCr-B