

DESCRIPTION

Executive Cobalt 12 is a cobalt based alloy designed for abrasion and corrosion resistance at elevated temperatures with a medium-high hardness.

The weld deposits display chrome carbides for abrasion resistance, tungsten for high temperature strength, and the high chromium level provides corrosion and oxidation resistance. Executive Cobalt 12 retains its hardness to high temperatures and is less likely to crack than Executive Cobalt 1.

While the cobalt-chromium deposits soften somewhat at elevated temperatures, they normally are considered immune to tempering. The welded deposits have a low coefficient of friction and will develop a high polish in service.

APPLICATIONS & FEATURES

Executive Cobalt 12 is used to build-up items where harsh abrasion and low impact are encountered.

Example applications include valve overlays, saw teeth, shafts, tappets and push rods for engines, screw conveyers and augers, thrust washers, press hammer ways, rail mill and rolling guides, cams, brake drums, and engine parts.

TYPICAL WIRE CHEMISTRY & MECHANICAL PROPERTIES

C	Cr	W	Mn	Si	Fe	Co	TOE
1.5	30	7.5	1.0	1.0	4.0	Rem	<0.50
Abrasion Resist:		Excellent		Corrosion Resist:		Excellent	
Impact Resist:		Good		Hardness as welded:		45-50 RC	
Machineability:				Good			
Hot Hardness:				Excellent to (800°C) 1472°F			

TYPICAL WELDING PARAMETERS

Diameter	Voltage	Amperage	Stick-Out	Position	Shielding Gas
.045"	18-30	120-230	1/2"	Flat	100% Ar
.062"	20-30	150-250	1/2"	Flat	or Ar / CO ₂ Mixtures

STANDARD PACKAGING

Spools 33-lb spools

CLASSIFICATION

AWS A5.21/ASME SFA A5.21 Class ERCCoCr-B

