EXECUTIVE COBALT 1

COBALT METAL

METAL CORED WIRE TECHNICAL DATA SHEET

DESCRIPTION

Executive Cobalt 1 is a cobalt based alloy designed for maximum abrasion, corrosion and heat resistance.

Tungsten, coupled with chromium carbides allows Executive Cobalt 1 to resist galling and oxidation and to maintain an effective hardness at operating temperatures up to over 1,000°C (1832°F). This characteristic gives the alloy higher wear resistance accompanied by reductions in the impact and corrosion resistance. The higher hardness also means a greater tendency to check during cooling. The checking tendency may be minimized by closely monitoring preheating, interpass temp and post heating techniques.

Executive Cobalt 1 deposits have a low coefficient of friction, and consequently develop a high polish in service.

APPLICATIONS & FEATURES

Typical uses include cement plant machinery, steel plant equipment, metal working tools, coke pusher shoes, carbon scrapers, valve steam hardfacing, wire guides, extrusion screws/conveyors, and rubber mixing equipment.

Do not use in applications involving impact and where crack free welds are essential.

TYPICAL WIRE CHEMISTRY & MECHANICAL PROPERTIES

C	Cr	W	Mn	Si	Fe	Co	TOE
2.3	29	12	1.0	1.0	4.0	Rem	<0.50

Abrasion Resist:	Excellent	**Corrosion Resist:**	Excellent	**Machineability:**	Fair
Impact Resist:	Fair	**Hardness as welded:**	50-55 RC	**Hot Hardness:**	Excellent to over 1000°C (1832°F)

TYPICAL WELDING PARAMETERS

Diameter	Voltage	Amperage	Stick-Out	Position	Shielding Gas
.045"	18-30	120-230	1/2"	Flat	100% Ar or Ar / CO_2 Mixtures
.062"	20-30	150-250	1/2"	Flat	

STANDARD PACKAGING

Spools 33-lb spools

CLASSIFICATION

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