



Cobalt METAL CORE WIRE DATA SHEET

exocor Cobalt 12

DESCRIPTION

Exocor Cobalt 12 is a cobalt base alloy which has high heat and corrosion resistance with excellent wear and abrasion resistance in high temperature applications. Chromium carbides contained in the deposits provide excellent resistance to many forms of chemical and mechanical degradation, including galling. It bonds well with all weldable steels including stainless.

APPLICATION

Exocor Cobalt 12 is ideally suited for the surfacing of knives and cutters used throughout the carpet, plastics, paper and chemical industries. It is also used for valve and pump parts, chain saw bars and saw teeth, and aircraft turbine blades.

TYPICAL CHEMICAL VALUES

C	Mn	Si	Cr	Ni	Mo	Fe	W	Co	TOE
1.4	0.9	1.1	27	0.2	0.1	3.9	8.3	Rem	1.0

WELDING PARAMETERS

PROCESS	SIZE	VOLTS	AMPS	STICK OUT	POSITION	SHIELDING GAS / FLUX
GMAW	.045	25 – 27	180 - 200	1/2" – 5/8"	Flat	100% Argon
	.062	26 – 28	280-300	5/8" – 3/4"	Flat	100% Argon

MECHANICAL PROPERTIES

Deposit Layers: 2 Maximum
Surface Cross Check: No*
Machinability: Use Carbide Tools
Abrasion Resistance: Excellent
Impact Resistance: Good
Corrosion Resistance: Good
Hardness (2 layers): HRC 44-45
Hot Hardness: Excellent

*ensure proper preheat and slow cooling

CLASSIFICATION

Wire chemistry has been optimized for best performance and conforms to **AWS/SFA A5.21, Class ERCCoCr-B.**