



Cobalt METAL CORED WIRE DATA SHEET

exocor Cobalt 1

DESCRIPTION

Exocor Cobalt 1 has a higher percentage (approximately 19%) of carbides than deposits made using either Exocor Cobalt 6 or Exocor Cobalt 12. In fact, the composition is such that primary hypereutectic carbides are found in the microstructure. 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 crack check during cooling. The checking tendency may be minimized by closely monitoring preheating, interpass temperature and post heating techniques. While the cobalt-chromium deposits soften somewhat at elevated temperatures, they normally are considered immune to tempering. Exocor Cobalt 1 bonds well with all weldable steels, including stainless and high nickel alloys.

APPLICATION

Weld metal deposited with Exocor Cobalt 1 is used to build-up items such as mixers, rotors or wherever harsh abrasion and low impact are encountered. Some typical applications include: screw components, cross heads and mixer rotors, bodies and tip sides. Additional applications include hydropulper disc segments, soaking pit-tong bits, valves & pumps as well as pump sleeves.

TYPICAL CHEMICAL VALUES

C	MN	SI	CR	NI	MO	FE	W	Co	TOE
2.6	0.6	0.2	26	0.2	0.1	3.6	11.2	Rem	1.0

WELDING PARAMETERS

SIZE	VOLTS	AMPS	STICK OUT	POSITION	SHIELDING GAS
.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:	Maximum 2 recommended
Surface Cross Check:	Control of product, interpass and cooling temperature required to avoid cracking
Machinability:	Use Carbide Tools/Grinder
Abrasion Resistance:	Excellent
Impact Resistance:	Fair
Corrosion Resistance:	Good
Pureweld Metal:	HRC 56-58
Hot Hardness:	Excellent to 1400°F

CLASSIFICATION

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