

WISDOM Welding Consumables

Cobalt based material



Chiamger WDCo-1

DATA SHEET

November 2015

INTRODUCTION

WISDOM Chiamger WDCo-1 is a cobalt based welding material that has the highest hardness and wear resistance of the standard cobalt alloys. WDCo-1 is used in elevated temperature, high wear applications. Exceptional resistance to metal-to-metal wear in corrosive media at high temperatures.

Common Names: Stellite 1 Polystel 1

Standard: AWS 5.21-2001 Mil-R-17131C ERCoCr-C Mil-CoCr-C

CHEMICAL COMPOSITION(%)

C	Si	Mn	Mo	Cr	W	Ni	Fe	Co
2.5	1.0	≤1.0	≤1.0	29.0	12.5	≤3.0	≤3.0	Rest

CHARACTERISTIC

Abrasion Resistance	Excellent
Impact Resistance	Moderate
Corrosion Resistance	Good
Hardness	HRC 50-60
Deposit Layers	2 Max
Deposit Cross Checks	* Possible
Magnetic	No
Hot Wear Hardness	Excellent
Machinability	Difficult

APPLICATIONS

Used to make rotating sealing ring, gouge type bearing sleeve, drill head, etc

Hydro pulper disc

Oil drilling tools

Mixer seals and rotors

WISDOM manufactures cobalt based, nickel based, iron based alloys in powder, rod and electrode forms. These stellite equivalent material have outstanding metallurgical and physical properties making them suitable for solving industry problems such as Wear, Corrosion and Erosion. Our welding processes including: TIG, Oxy-acetylene, MMA, PTA, Laser, HVOF, Plasma Spray.

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