

WISDOM Welding Consumables

Cobalt based material



Chiamger WDCo-6

DATA SHEET

November 2015

INTRODUCTION

WISDOM WDCo-6 cobalt based bare cast rod and is the most widely used of the cobalt alloys. It is regarded as the industry standard for general-purpose wear resistance applications, has excellent resistance to many forms of mechanical and chemical degradation over a wide temperature range, and retains a reasonable level of hardness up to 500°C (930°F)

Common Names: Stellite 6 Polystel 6

Standard: AWS 5.21-2001 ERCoCr-A

CHEMICAL COMPOSITION(%)

C	Si	Mn	Mo	Cr	W	Ni	Fe	Co
1.15	1.0	≤1.0	≤1.0	29.0	4.5	≤3.0	≤3.0	Rest

CHARACTERISTIC

Abrasion Resistance	Good
Impact Resistance	Good
Corrosion Resistance	Good
Hardness	HRC 40-46
Deposit Layers	2 Max
Deposit Cross Checks	* Possible
Magnetic	No
Hot Wear Hardness	Good
Machinability	Carbide Tools

APPLICATIONS

Motor spiracle, high temperature and high pressure valve sealing surface

Bearing Areas

Extrusion Screws Flights

Tong Bits

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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