

WISDOM Welding Consumables

Cobalt based material



Chiamger WDCo-21

DATA SHEET

November 2015

INTRODUCTION

WISDOM WD-Co21 is recommended for applications involving cavitation, erosion, corrosion and high temperature, such as valve trim for petrochemical and power generation. Due to its good impact resistance, it has been widely used in the building up of forging or hot stamping dies.

Common Names: Stellite 21 Polystel 21

Standard: AWS 5.21-2001 ERCoCr-E

CHEMICAL COMPOSITION(%)

C	Si	Mn	Mo	Cr	W	Ni	Fe	Co	Others
0.2	2.0	≤1.0	5.5	28.0	0.2	≤3.0	2.0	Bal	<1.0

CHARACTERISTIC

Abrasion Resistance	Moderate
Impact Resistance	Excellent
Corrosion Resistance	Good
Hardness	HRC 20-40
Deposit Layers	Multiple
Deposit Cross Checks	No
Magnetic	No
Hot Wear Hardness	Good
Machinability	Carbide Tools

APPLICATIONS

Used to make various liquid valves, valve seats

Water turbine blade, hot forging die

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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