DURAMAX®
Inspiring the future generations of welders

Product
Data Sheet

DMCCO#21 -- DURAMAX COBALT #21 -- TUBULAR CORED WIRE

Classification: ***Specification:*** ***AWS A5.21 / ASME SFA 5.21***

Description:

DMCCO#21 metal cored wire deposits a low carbon austenitic cobalt type alloy with excellent work hardenability, high temperature, strength, and impact resistance. These deposits are quite stable during thermal cycling, making them a favorite for hot die materials. Its resistance to galling (self-mated), corrosion and cavitation erosion make DMCOO#21 a good choice for valve trim on steam and fluid control valve bodies and seats. It bonds well to all weldable steels, including stainless. Typical applications include hot forming dies and tools, pump shafts, high pressure-high temperature valves, mixer blades, gas turbines.

Typical Chemical Composition (%)

C	Mn	Si	Cr	Ni	Mo	Fe	W	Co
0.15 - 0.40	2.0 max	1.5 max	25.0 - 30.0	1.5 - 4.0	4.5 - 7.0	5.0 max	0.50 max	Remainder

TOE = 1.0 max

Typical Deposit Characteristics:

- Metal to Metal Wear	Excellent	- Cold Abrasion	Excellent
- Impact Resistance	Good	- Hot Abrasion	Excellent
- Erosion	Excellent	- Deposit Layers	unlimited
- Corrosion	Excellent	- Machinability	Use Carbide Tools
- Typical Hardness	HRC 34 - 55	*With Proper Preheat and Slow Cooling	

Sizes available and recommended currents

Diameter	Amps DCEP	Voltage	Shielding Gas	Wire Extension	Position
.045" (1.2mm)	180 - 200	25 - 27	Argon	1/2" - 5/8"	Flat
1/16" (1.6mm)	280 - 300	26 - 28	Argon	5/8" - 3/4"	Flat

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