

DMCO#6 -- DURAMAX COBALT #6 -- BARE WIRE

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

Description:

DMCO#6 is a cobalt based bare cast rod and is the most widely used of the cobalt alloys. It has excellent resistance to many forms of chemical and mechanical degradation over a wide temperature range. DMCO#6 attributes are its outstanding self-mated anti-galling properties, resulting in its use for a wide range of hardfacing applications as in valve seats and bearing areas. It can be applied to all weldable steels, including stainless steels. Typical applications include valve seats, bearing areas, food processing equipment.

Typical Chemical Composition (%)

C	Mn	Si	Cr	Ni	Mo	Fe	W	Co
0.90 - 1.40	1.0 max	2.0 max	26.0 - 32.0	3.0 max	1.0 max	3.0 max	3.0 - 6.0	Remainder

TOE = 0.50 max

Typical Deposit Characteristics:

- Abrasion Resistance	Excellent	- Cold Abrasion	Good
- Impact Resistance	Excellent	- Hot Abrasion	Good
- Erosion Resistance	Excellent	- Deposit Layers	1 Layer / 2 max
- Corrosion Resistance	Excellent	- Machinability	Use Carbide tools
- Typical Hardness	HRC 40 - 43	*With Proper Preheat and Slow Cooling	

Sizes available and recommended currents GTAW

Diameter	Process	Current	Voltage	Amperage	Shielding Gas
3/32" (2.4mm)	GTAW	DCEN	20 - 40	80 - 100	Argon
1/8" (3.2mm)	GTAW	DCEN	20 - 40	90 - 120	Argon
5/32" (4.0mm)	GTAW	DCEN	20 - 40	120 - 140	Argon
3/16" (4.8mm)	GTAW	DCEN	20 - 40	140 - 160	Argon

Sizes available and recommended setting for Oxyfuel

Diameter	Process	Tip Size / Flame
3/32" - 3/16" (2.4mm - 4.8mm)	OAW	#4 or #5 / 3X - 4X