

## DMCO#12 -- DURAMAX COBALT #12 -- BARE WIRE

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

### Description:

DMCO#12 bare rod develops high hardness, abrasion resistance and good corrosion resistance. These properties make DMCO#12 the choice for cutting wood saws and bars and for industrial cutting applications for carpet, plastics, paper and chemical industries. It is non-forgable and can be machined with difficulty using carbide tools. DMCO#12 bonds well to all weldable grade steels, including stainless. Typical applications include valve seats, bearing areas, rotary cutters, food processing equipment.

### Typical Chemical Composition (%)

C	Mn	Si	Cr	Ni	Mo	Fe	W	Co
1.2 - 1.7	1.0 max	2.0 max	26.0 - 32.0	3.0 max	1.0 max	3.0 max	7.0 - 9.5	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 - 51	*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