DURAMAX COBALT #6 -- COBALT STICK ELECTRODE

Classification: **ECoCr-A** ***Specification:*** AWS A5.13 / ASME SFA 5.13

Product Description:

DURAMAX Cobalt#6 SMAW electrodes are our most popular and useful cobalt alloy, it offers an excellent balance between impact, heat, corrosion and metal-to-metal abrasion resistance. It also offers outstanding anti-galling properties, superior high temperature hardness and resistance to cavitation erosion making it perfect to use as valve trim in steam engines or repairing worn machine parts. DMCobalt#6 is ideal for many hard-surfacing applications because of its resistance to mechanical and chemical degradation at extreme temperature produces a medium hardness cobalt-chromium deposit for high temperature applications with good abrasive wear and good impact resistance. It bonds well with all weldable steels, including stainless.

Typical Applications:

- Agitators
- Chain Saw Bars
- High Pressure-High Temperature Valves
- Hot Trimming Dies
- Hot Punches
- Hot Oil Pump Parts
- Extruder Screws

Typical Chemical Composition (%)

C	Mn	Si	Cr	Ni	Mo	Fe	W	Co
0.7 - 1.4	2.0 max	2.0 max	25.0 - 32.0	3.0 max	1.0 max	5.0 max	3.0 - 6.0	Bal
1.1	0.90	1.00	27.30	2.50	0.10	3.30	4.60	Bal

Typical Deposit Characteristics:

- Abrasion Resistance	Excellent	- Hardness	HRC 23 - 47
- Impact Resistance	Good	- Hot Weld Hardness	Excellent
- Corrosion Resistance	Good	- Deposit Layers	2 Layers Maximum
- Magnetic	No	- Surface Cross Checks	Not with proper preheat
- Machineability	Use Carbide tools/grind	- Proper Heat Treatment	and Slow Cooling

Available sizes & recommended current: DC, Electrode Positive (reverse polarity)

Polarity	DC + (DCEP)	DC + (DCEP)	DC + (DCEP)
Size	1/8	5/32	3/16
Amperage Range	115 - 135	145 - 165	175 - 195

Note: Minimum preheat recommended is 400°F (204°C). Required preheat will depend on base material composition and component dimensions.

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The above information is to be use as a guideline and is taken directly from the manufacturers Technical Data Sheet. If additional information is needed please contact us at 1-800-692-5930