



Supplier of Welding Alloys

Cobalt Metal Cored Wire

Oxford Alloy® #6M

SPECIFICATIONS

AWS 5.21
ASME SFA 5.21

CLASSIFICATIONS

AWS ERCCoCr-A
UNS W73036

DESCRIPTION / APPLICATION

Oxford Alloy #6M is an alloy-cored wire for GMAW applications. This is the most widely used cobalt alloy having excellent resistance to many forms of mechanical and chemical degradation over a wide temperature range. Some attributes of the Oxford Alloy #6M are its outstanding self mated anti-galling properties, high temperature hardness and high resistance to cavitation erosion. Oxford Alloy #6M should be welded with direct current reverse polarity requiring proper preheat, controlled inter-pass temperatures and cooling rates. Some power supplies are used to reduce penetration and base metal dilution. Crack free deposits up to two layers. Some applications that the Oxford Alloy #6M is used for are flights of extrusion screws, sinker roll bushings in steel mills, soaking pit tong bits, and shafts.

AWS Chemical Composition						
C	Mn	Si	Cr	W	Fe	Ni
0.7-1.4	2.0 max	2.0 max	25-32	3.0-6.0	5.0 max	3.0 max
Co	Mo	OET				
Bal	1.0 max	1.0 max				

TYPICAL MECHANICAL PROPERTIES

Rockwell Hardness: 23-47 HRC

Note: The typical hardness values listed above are for multilayer welds. Hardness values for single deposits will be lower because of dilution from the base metal.

Please contact our sales department for more information at 800-562-3355 or 225-273-4800.

Data contained in this publication are typical of the products and properties described, but are not suitable for specifications.
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