



Supplier of Welding Alloys

## Cobalt Flux Coated Electrodes

### Oxford Alloy® #6

#### SPECIFICATIONS

AWS 5.13  
ASME SFA 5.13

#### CLASSIFICATIONS

AWS ECoCr-A  
UNS W73006

#### DESCRIPTION / APPLICATION

Oxford Alloy #6 Coated is a non-ferrous, cobalt-chromium-tungsten alloy. This electrode is recommended for metal-to-metal abrasion and high impact applications involving high temperatures and/or corrosive media. Some typical applications are valves of all kinds, shear blades, hot punches and saw guides. Oxford Alloy #6 Coated is the most generally useful cobalt alloy; it has excellent resistance to many forms of mechanical and chemical degradation over a wide temperature range. This alloy has outstanding self-mated anti-galling properties, high temperature hardness, and a high resistance to cavitation erosion, which result in its wide use as a valve seat material. It is ideally suited for a variety of hard-facing processes. The weld deposits of the Oxford Alloy #6 Coated are smooth and normally acquire mirror-like finish in use. The deposits retain wear resistance at high temperatures. This alloy is nonmagnetic and is not forgeable. It can be machined with carbide tools. Oxford Alloy #6 Coated bonds well with weldable alloy steels, including stainless.

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

#### TYPICAL MECHANICAL PROPERTIES

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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