



Supplier of Welding Alloys

Cobalt Flux Coated Electrodes

Oxford Alloy® #21

SPECIFICATIONS

AWS 5.13
ASME SFA 5.13

CLASSIFICATIONS

AWS ECoCr-E
UNS W73021

DESCRIPTION / APPLICATION

Oxford Alloy #21 Coated is a low carbon, molybdenum strengthened, cobalt-chromium 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 #21 Coated is also used as hot die material because of its high temperature strength and stability. Its inherent resistance to galling (under self-mated conditions), cavitation erosion, and corrosion resistance have made it a popular fluid valve seat-facing alloy. The weld deposits of the Oxford Alloy #21 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 #21 Coated bonds well with weldable alloy steels, including stainless.

AWS Chemical Composition						
C	Co	Cr	Mo	Ni	Mn	Si
0.15-0.40	Bal	24-29	4.5-6.5	2.0-4.0	1.5 max	2.0 max
W	Fe	OET				
0.50 max	5.0 max	1.0 max				

TYPICAL MECHANICAL PROPERTIES

Hardness: 20-32 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.

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