



Supplier of Welding Alloys

Cobalt Metal Cored Wire

Oxford Alloy® #21M

SPECIFICATIONS

AWS 5.21
ASME SFA 5.21

CLASSIFICATIONS

AWS ERCCoCr-E
UNS W73041

DESCRIPTION / APPLICATION

Oxford Alloy #21M is an alloy-cored wire for GMAW applications with excellent high temperature strength making it suitable for use on hot dies. The deposits of this alloy are inherently resistant to galling, cavitation erosion, and corrosion. Abrasion resistance of the Oxford Alloy #21M is lower than other wires but its impact strength at high temperatures; anti-galling properties and corrosion resistance are outstanding. Oxford Alloy #21M should be welded with direct current reverse polarity requiring proper preheat, interpass temperatures and controlled cooling to minimize or produce a crack free deposit. Some applications that the Oxford Alloy #21M is used for are fluid valve seats, tube mill piercing plugs, hot shears, erosion shields, and forging dies.

AWS Chemical Composition						
C	Mn	Si	Cr	Mo	Fe	Ni
0.15-0.40	2.0 max	1.5 max	25-30	4.5-7.0	5.0 max	1.5-4.0
Co	W	OET				
Bal	0.50 max	1.0 max				

TYPICAL MECHANICAL PROPERTIES

Rockwell Hardness: 20-35 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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