

## **Universal Wire Works No. 1 Cobalt Alloy Welding Wire**

Category: Metal, Nonferrous Metal, Cobalt Alloy, Superalloy

## **Material Notes:**

Universal No. 1 is a cobalt-chromium-tungsten alloy suited for applications requiring extreme abrasion resistance at elevated temperatures. Excellent for resistance to corrosion and oxidation where impact resistance is not mandatory. Hardness characteristics remain intact under operating temperatures of 1800°F. The excellent resistance to wear, softening, corrosion and erosion suits Universal No. 1 to severe applications where a hardness of Rc 53 - 59 is required. Machinability: Carbide tools or grinding. Information provided by Universal Wire Works for their line of welding wire and filler metal.

## Order this product through the following link:

http://www.lookpolymers.com/polymer\_Universal-Wire-Works-No-1-Cobalt-Alloy-Welding-Wire.php

Physical Properties	Metric	English	Comments
Density	8.75 g/cc	0.316 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell C	53 - 59	53 - 59	
Tensile Strength, Ultimate	483 MPa	70000 psi	

Thermal Properties	Metric	English	Comments	
Melting Point	1230 °C	2250 °F		
Maximum Service Temperature, Air	982 °C	1800 °F		

Component Elements Properties	Metric	English	Comments
Carbon, C	2.5 %	2.5 %	
Chromium, Cr	29.5 %	29.5 %	
Cobalt, Co	49.5 - 50.5 %	49.5 - 50.5 %	As Remainder
Iron, Fe	2.0 %	2.0 %	
Molybdenum, Mo	<= 1.0 %	<= 1.0 %	
Nickel, Ni	2.0 %	2.0 %	
Silicon, Si	1.0 %	1.0 %	
Tungsten, W	12.5 %	12.5 %	

## **Contact Songhan Plastic Technology Co.,Ltd.**



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