

## **Universal Wire Works No. 21 Cobalt Alloy Welding Wire**

Category: Metal, Nonferrous Metal, Cobalt Alloy, Superalloy

## **Material Notes:**

Universal No. 21 is a cobalt-chromium-molybdenum alloy designed for covered electrode, TIG, MIG, hard surfacing applications. The work-hardening characteristics, high ductility properties, excellent resistance to impact and metal to metal wear suit Universal 21 to severe applications where a work-hardening material is desired (as welded Rc 20; work hardened Rc 40 - 43). Universal 21 applications include: high temperature valves, high pressure valves, hot punches crushing knives, drop forging dies, tap hole augers, pump shafts and sleeves, press dies, vapor tight valve seats. Alloy 21 work hardens in service, has excellent erosion, corrosion and metal to metal wear resistance. Deposits exhibit effective hardness and a good cutting edge at high temperatures. On thick overlays Alloy 21 can be used as a buildup prior to depositing a higher hardness alloy. Machinability: Use carbide tools. 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-21-Cobalt-Alloy-Welding-Wire.php

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell C	20	20	As Welded
	40 - 43	40 - 43	Work Hardened
Tensile Strength, Ultimate	696 MPa	101000 psi	

Thermal Properties	Metric	English	Comments
Melting Point	1352 °C	2465 °F	

Component Elements Properties	Metric	English	Comments
Carbon, C	0.65 %	0.65 %	
Chromium, Cr	28.5 %	28.5 %	
Cobalt, Co	59.9 %	59.9 %	As remainder
Iron, Fe	2.0 %	2.0 %	
Molybdenum, Mo	5.5 %	5.5 %	
Nickel, Ni	2.0 %	2.0 %	
Silicon, Si	1.0 %	1.0 %	
Tungsten, W	0.50 %	0.50 %	

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



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