



CONTINUOUS
CAST ALLOYS

PRODUCTS AND SERVICES

ABOUT US

Continuous Cast Alloys is a custom manufacturer of premium Nickel and Cobalt based Alloy Products. Our customers choose us for exceptional value, unparalleled product quality and worldwide distribution. We're confident we can meet your toughest alloy challenge!



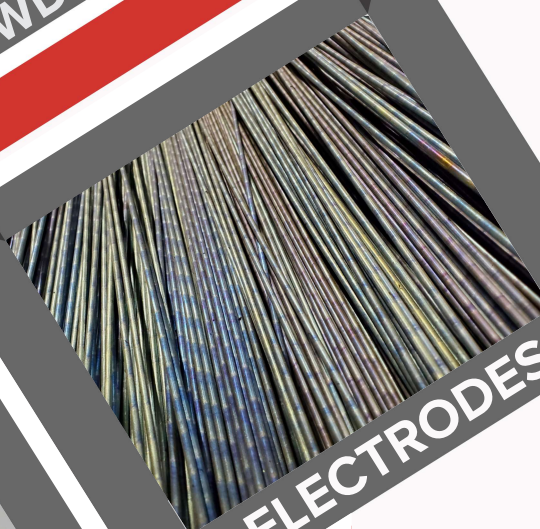
WIRES



POWDERS



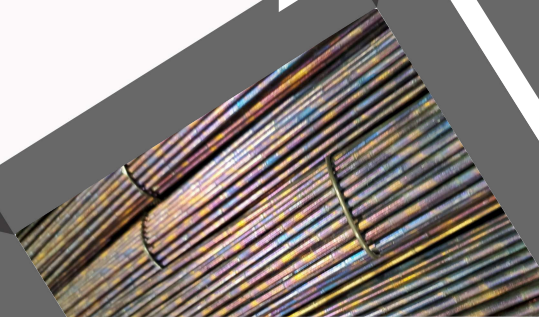
JEWELRY



ELECTRODES



DENTAL



PHONE

(815) 562-8200

ADDRESS

RODS



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CAST ALLOYS

www.ccalloys.com

Choose a wide variety of Weld Rods from CCA

Continuous Cast Alloys, (CCA) is the leading manufacturer of cobalt- and nickel- base hardfacing welding rods and electrodes. Our cast rods are produced using state-of-the-art computer controlled continuous casting system. Available in a wide range of lengths and diameters, CCA rods are produced to the AWS standard and customized compositions to meet your specific wear requirements.

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As well as their more obvious applications in marine or vehicle engines, the special properties of these compounds make them valuable across a wide range of industrial applications. The oil & petroleum, nuclear, plastics, steel, and metal-processing industries rely on them, as do glass bottle and ceramics manufacture. Quarrying, mining, earth-moving, construction, timber and the wood-pulp industry all find hardfacing alloys essential to their day-to-day equipment reliability and long-term productivity.

- **More efficient, cleaner continuous casting technology**
- **Innovative processes and state-of-the-art technologies that keep your cost competitive**
- **Every order shipped with a Certificate of Analysis**
- **Industry experts on staff – our partnerships ensure superior quality products but provides valuable consultation and field support**

WELD ROD PRODUCTS



Cobalt 1 Rod



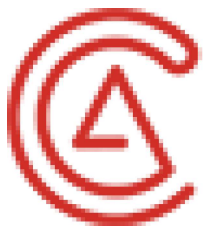
Cobalt 6 Rod



Cobalt 12 Rod



Cobalt 21 Rod



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POWDERS

Choose high-quality,
high-value alloys powders
from CCA.

Continuous Cast Alloys (CCA) range of atomized cobalt- and nickel-base powders includes specific alloy compositions and sieve cuts for use with PTA, laser cladding, HVOF, and flame spraying techniques.

HIGH-VALUE ALLOYS POWDERS FROM CCA

- 1- High purity and a very low level of oxygen are due to the inert gas atomizing process.
- 2- Good fluidity because of the spherical shape of each particle with the minimum of satellites.
- 3- A wide choice of alloy powders.
- 4- A full product range for Plasma Transferred Arc Welding, Thermal Spraying and the HIP process.

PLASMA TRANSFERRED ARC WELDING

Plasma Transferred Arc Welding (PTA) has come to play an important role in hardfacing.

PTA POWDER

- 1- High quality and purity PTA welded beads obtained.
- 2- Good fluidity of powder
- 3- A wide range of Hardfacing Alloy Powders from which to choose.

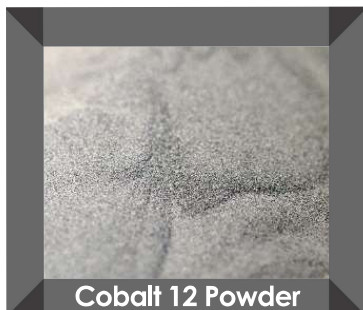
TYPICAL ALLOY POWDERS

- 1- Particle Size 180/45µm (00/325 Mesh), 150/45 µm (100/325 Mesh) Other Particle Size Available
- 2- Apparent Density > 4.0g/cm³
- 3- Flow Rate : < 1f3sec/50g
- 4- Unit Weight : 5kgs/bottle or 10 lbs/bottle

POWDERS PRODUCTS



Cobalt 21 Powder



Cobalt 12 Powder



Cobalt 6 Powder



Cobalt 1 Powder



CONTINUOUS
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WIRES

High-Quality Metal-cored wires from CCA

For assistance in selecting the right hardfacing and high alloy products for your wear resistance needs, contact Continuous Cast Alloys



Continuous Cast Alloys (CCA) range high-quality metal-cored wires for GMA welding deposition and suitable for automatic and semi-automatic applications. The welded deposits have higher silicon and manganese contents than cast rods deposits, giving better deoxidization and welding characteristics. We offer a wide range of Cobalt & Nickel Alloys. Our diameters range from 1.2mm (.045") – 1.6mm (.062").

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WIRE PRODUCTS



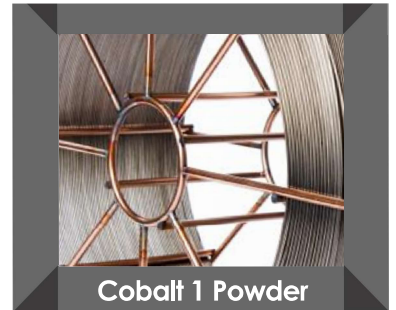
Cobalt 21 Powder



Cobalt 12 Powder



Cobalt 6 Powder



Cobalt 1 Powder

CONTACT

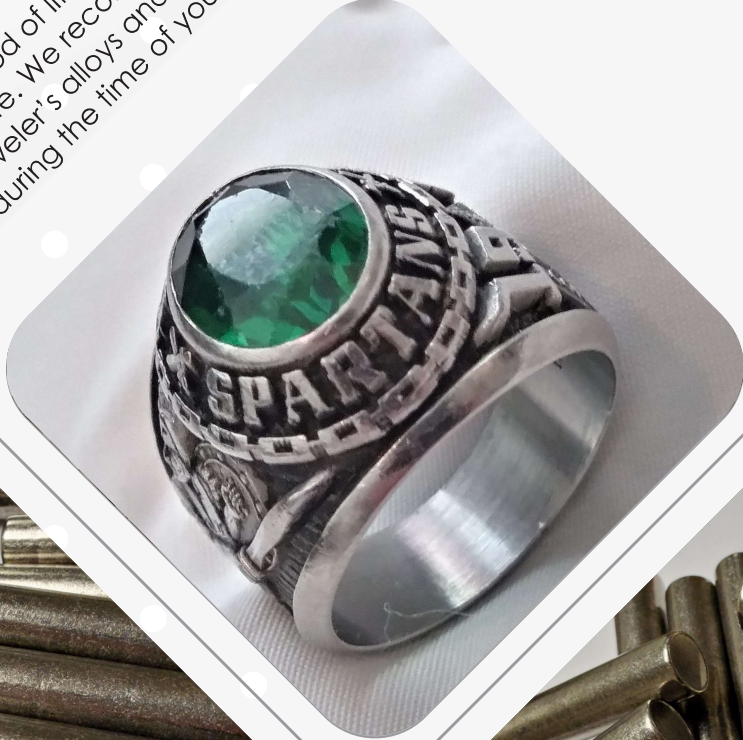


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Choose American-Made, High-Quality, High-Durability and Shine of CCA's Non-Precious Jewelry Alloys

A Class Ring is a wonderful piece of jewelry to wear for a period of life, but it is not normally something you will wear for the rest of your life. We recommend the lower cost metals! They are actually harder (more jeweler's alloys and less precious metal) and therefore more durable for wear during the time of your life when you are the most active.

JEWELRY

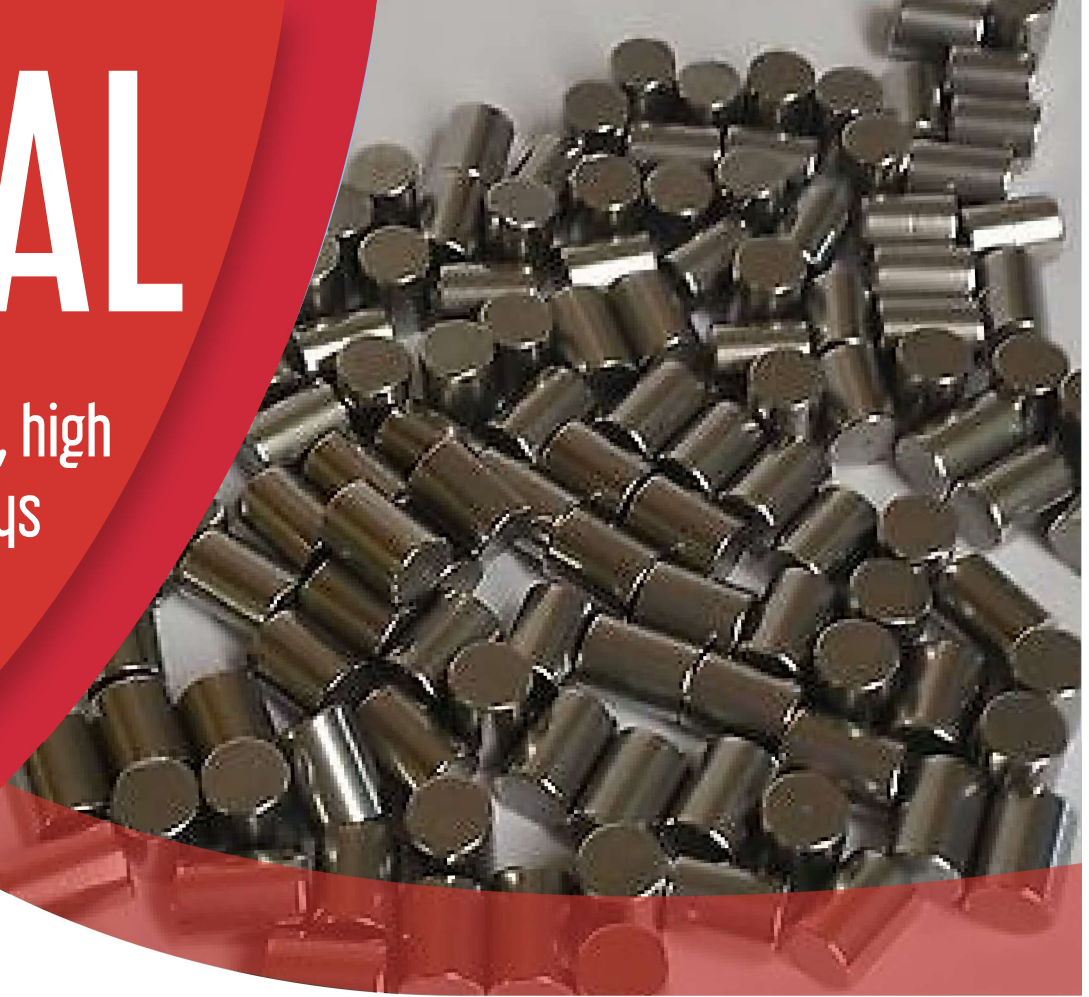


CONTACT US

PHONE
(815) 562-8300

DENTAL

Choose high-quality, high value dental alloys from CCA.



We manufacture premium Nickel and Cobalt based dental alloys, designed to keep you competitive. Because your customers are demanding, we provide consistent quality – thanks to our comprehensive on-site laboratory, our extensive technical expertise, and our outstanding customer support. We deliver the best value for you. Choose Continuous Cast Alloys today.

- **More efficient, cleaner continuous casting technology**
- **Custom capabilities, proprietary chemistries**
- **Every order shipped with a Certificate of Analysis**
- **Innovative processes and state-of-the-art technologies that keep you cost competitive**

SPECIFICATION SECTION

CAST ROD

Single lengths up to 20'

Cut to custom lengths

Available shapes:

Round, Hexagonal

Available finishes:

As-Cast, Centerless Ground

INGOT & SHOT

Ingot:

Continuous Cast, Sand Cast

Ingot and Shot:

Available in 3/8", 1/2" and 3/4"

CCA – TYPICAL CHEMICAL COMPOSITION

Alloy	NOMINAL CHEMICAL COMPOSITION (WTS)										AVAILABLE FORM			TYPICAL APPLICATION								
	Co	Cr	W	C	Fe	Si	Ni	Others	TYPICAL HARDNESS RANGE	BAR CAST ROD	ELECTRODE WIRE	POWDER	METAL TO METAL WEAR		IMPACT	EROSION	CORROSION	COLD ABRASION	HOT ABRASION			
CO-BASE	C61	BAL	31	12.5	2.5	+3	+2	+3	-	30/54	1	1	1	3	2	3	3	3	3	SEAL RINGS VALVES SAWS CUTTERS		
	C64	BAL	31	13.5	0.6	+3	+2	+3	-	44 (P)	1	-	-	3	3	3	3	1	2	DIES FOR DRY CELL BATTERIES		
	C66	BAL	29	4.5	1.2	+3	+2	+3	-	39/44	1	1	1	3	3	3	3	1	1	AUTO VALVES MIXERS EXTRUDERS		
	C68	BAL	31	5.5	1.3	+2	+2	+3	-	42/46	1	1	1	3	3	3	3	3	1	1	ENGINE VALVES EXTRUSION SCREWS	
	No.12	BAL	30	8.2	1.5	+3	+2	+3	-	46/49	1	1	1	3	1	3	3	3	3	3	ENGINE VALVES SAW TEETH & BARS	
	No.21	BAL	27	-	0.25	+2	+1.5	+3.75	MoS.4	29/34	1	1	1	3	3	3	3	1	1	1	OIL VALVES SEALS LARGE SEATS	
NI-BASE	C632	BAL	26	12.2	1.8	+2	+2	22	-	40/43	1	-	-	1	3	3	3	3	3	1	AUTO VALVES	
	No.190	BAL	26	13.5	3.2	+2.0	+2	+1	-	54/57	1	1	1	3	2	3	3	3	3	1	TIB-CONE ROCK BITS FOR OIL DRILLING	
	C620	BAL	32	16.3	2.5	+3	+2	-	-	55/58	1	1	1	3	2	3	3	3	3	1	SCREWERS	
	C649	BAL	28	19	0.6	+3	-	5	V:1.1	50/71	1	1	1	1	2	3	3	3	3	3	TURBINE BLADE INTERLOCKING SURFACES	
	C680	BAL	8.5	-	-0.04	+2	2.5	+2	Mo:28	52/55	1	-	1	3	2	3	3	3	3	3	3	EXCELLENT WEAR RESISTANCE UNDER HEAVY ABRASION AND CORROSION
	C680	BAL	17.5	-	-0.004	+3	3.2	-	Mo: 28.5	56/58	1	-	1	3	2	3	3	3	3	3	3	EXCELLENT WEAR RESISTANCE UNDER HEAVY ABRASION AND CORROSION
IN-BASE	No.46	-	7.5	-	0.25	2.5	3.5	Bal	B:1.6	39	2	2	1	1	3	1	3	1	1	1	MOULDING VALVES AND PLUNGERS	
	No.58	-	11	-	0.45	2.9	3.9	Bal	B:12.5	48	2	2	1	1	4	3	3	3	1	1	SHAFT SLEEVES	
	No.60	-	14.8	-	0.75	3.5	4.3	Bal	B:13.0	59	2	2	1	1	2	3	3	3	3	3	SHAFT SLEEVES	
IN-BASE	ADALLOY	0	32	-	4	Bal	1.7	Mn:3.7	54/60	1	1	1	1	3	1	1	3	1	3	1	AGRICULTURE	



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