



**umicore**

Jewellery & Industrial Metals

**Ready-Stock™  
Catalogue**

Umicore Precious Metals Canada Inc. has been serving the North American precious metals industry with refining services and fabricated products since 1914.

It has differentiated itself by providing superior customer service and an unrivalled range of products and services. Our manufacturing and refining plant in Canada is ISO 9001:2015, ISO 14001:2015, and ISO 45001:2018 certified and strives for continuous improvement in quality and environmental performance.

The Ready-Stock™ Catalogue offers a selection of the most commonly used precious metals products, generally available for immediate shipment. The offering is updated regularly in order to reflect new products and our customers' most recent feedback and needs, while continuing our tradition of service and reliability. Should you be unable to find what you need in this catalogue then feel free to contact us and we'll be happy to assist you further.

Grain & Fine Metal	PG. 3
Plate & Sheet	PG. 5
Solder	PG. 8
Wire	PG.10
14K Red Wire	PG.16
Ring Tube	PG.17
Arctic Fox™ Anti-Tarnish Silver	PG.18
Sustainability	PG.19
Technical Tips	PG.20
Services	PG.25
Customer Care	PG.26
Terms & Conditions	PG.27



## For Casting Grain Use Metal & Flask Temperatures

“Liquidus” is the temperature at which an alloy is fully liquid. “Solidus” is the temperature at which an alloy is fully solid. Between these temperatures is a 2 phase slushy region. To fill your flask, you need a superheat from 30° to 100°C/86° to 212°F above the liquidus. “Superheat” is how much hotter the melt should be to flow into the flask. A general guideline to follow is +30°C/86°F for large pieces, +60°C/140°F for medium pieces and +100°C/212°F for small pieces or intricate pieces. Corresponding flask temperatures of 482°C/900°F, 538°C/1000°F and 593°C/1100°F respectively are also recommended. Models with complex geometry may warrant changes to these guidelines...so be prepared to experiment and adapt to the uniqueness of your particular style! Density is provided to allow for wax compensation.

## Palladium – White Gold

Palladium-white gold alloys are unique. They benefit from significant additions of palladium to create nickel-free white golds that provide the most attractive white colour and the most ease of use in fabrication. Simply adding palladium to a white alloy formula does not necessarily yield optimum results. The objective is to create a nickel-free, malleable, platinum-white material that resolves complaints long associated with the nickel-white alloys currently populating our industry.

Umicore’s palladium-white gold is nickel free, exhibits the whitest colour of any gold product on the market, and has the best performance in all types of jewellery manufacturing. All Umicore palladium white alloys are Grade 1 on the World Gold Council whiteness index.

## Fine Metal

Umicore supplies fine metal in the form of grain (Au or Ag) or mini bars (Au only). If you alloy your own metal and are confident in controlling the sensitive alloying techniques, Umicore is your source for fine gold and silver.

## CASTING GRAIN SPECIFICATIONS

PART NO.	ALLOY	LIQUIDUS	SOLIDUS	DENSITY (g/cm <sup>3</sup> - dwt/in <sup>3</sup> )
GR10YAMP000	10K Yellow	908°C/1666°F	881°C/1618°F	11.28-119.0
GR10GNGA000	10K Green	858°C/1576°F	815°C/1499°F	11.23-118.5
GR10RRED000	10K Red	982°C/1800°F	973°C/1783°F	11.44-120.7
GR10KW601000	10K Nickel-White	1073°C/1963°F	1030°C/1886°F	11.23-116.4
GR14YAMP000	14K Yellow	910°C/1670°F	870°C/1598°F	12.79-134.9
GR14GNB000	14K Green	912°C/1674°F	880°C/1616°F	14.02-147.9
GR14RRED000	14K Red	947°C/1737°F	937°C/1719°F	12.92-136.3
GR14KW601000	14K Nickel-White	1030°C/1886°F	1000°C/1832°F	12.73-132.7
GR14DWPD000	14K Palladium-White	1094°C/2001°F	1079°C/1974°F	14.22-150.0
GR18YY08000	18K Yellow	874°C/1605°F	854°C/1569°F	15.32-161.6
GR18W601000	18K Nickel-White	948°C/1738°F	916°C/1681°F	14.78-155.9
GR18GNGC000	18K Green	952°C/1746°F	935°C/1715°F	15.68-165.4
GR18RRED000	18K Red	920°C/1688°F	880°C/1616°F	15.10-159.3
GR18DWPD000	18K Palladium-White	1074°C/1965°F	1064°C/1947°F	15.80-166.7
GR19W601000	19K Nickel-White	920°C/1688°F	902°C/1656°F	15.20-160.4
GR22YY08000	22K Yellow	979°C/1794°F	950°C/1742°F	17.79-187.7
GR90WIR0000	90% Platinum-10% Iridium	1790°C/3254°F	1770°C/3218°F	21.54-227.2
GR95WIR0000	95% Platinum-5% Iridium	1825°C/3317°F	1800°C/3272°F	21.49-226.7
GR95WRU0000	95% Platinum-5% Ruthenium	1795°C/3263°F	1780°C/3236°F	20.70-218.4
GRSSW000000	Sterling Silver	893°C/1639°F	810°C/1490°F	10.40-109.7
GRFSW000000	(99.9%) Fine Silver Grain	960°C/1760°F	960°C/1760°F	10.50-110.8
GRSSWANTI00	Arctic Fox™ Anti-tarnish Sterling Silver	867°C/1593°F	824°C/1515°F	10.25-108.2
GR24YFINE00	24K Fine Gold Grain	1064°C/1947.2 °F	1064°C/1947.2 °F	19.3-203.4

























































Umicore's Ready-Stock™ plate products meet the needs of both the high volume factory and the small volume bench jeweller. They are shipped in a half-hard temper allowing you to use them "as-is" or anneal them for a softer temper. Providing optimum ductility and strength, Ready-Stock™ plate provides superior performance in all stamping and forming operations, and adapts well to all jewellery manufacturing procedures and methods.

Our Gold and Silver Ready Stock plate come in 10.16cm (4 inch) widths and our Platinum Plate comes in 5.08cm (2 inch) widths.

## Plate & Sheet

## GOLD PLATE








THICKNESS (mm/in.)	SHAPE/ SIZE	B & S GAUGE	10KY	10KW	14KY	14KW	18KY	18KW	18KW-Pd
0.25 / 0.010		30		•			•	•	•
0.32 / 0.013		28		•	•	•	•	•	•
0.35 / 0.014		27		•			•	•	•
0.4 / 0.016		26		•		•	•	•	•
0.5 / 0.020		24						•	•
0.75 / 0.030			•	•				•	•
1 / 0.039		18							•
1.2 / 0.047				•				•	•
1.5 / 0.059									•
1.75 / 0.069			•	•		•	•	•	•
2 / 0.079		12							
2.5 / 0.098				•	•	•	•	•	•




























Available in 1 - 2 business days (minimums apply)






• Available in 6 - 7 business days (minimums apply)

Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.

GOLD PLATE 19KW			
THICKNESS (mm/in.)	SHAPE / SIZE	B & S GAUGE	19KW
1 / 0.039		18	
1.5 / 0.059			
2 / 0.079		12	
 Available in 1 - 2 business days (minimums apply)			
Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.			

SILVER PLATE		
THICKNESS (mm/in.)	B & S GAUGE	Sterling Silver
0.25 / 0.010	30	
0.3 / 0.012		
0.32 / 0.013	28	
0.35 / 0.014	27	
0.4 / 0.016	26	
0.5 / 0.020	24	
0.6 / 0.024		
0.64 / 0.025		
0.7 / 0.028		
0.75 / 0.030		
0.8 / 0.031	20	
0.9 / 0.035		
1 / 0.039	18	
1.1 / 0.043		
1.2 / 0.047		
1.3 / 0.051		
1.5 / 0.059		
1.75 / 0.069		
2 / 0.079	12	
2.5 / 0.098		
3 / 0.118		
 Available in 1 - 2 business days (minimums apply)		
Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.		

PLATINUM PLATE 95/5 RU		
THICKNESS (mm/in.)	B & S GAUGE	90W
2 / 0.079	12	
2.5 / 0.098		
 Available in 1 - 2 business days (minimums apply)		
Other Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.		

ANTI-TARNISH SILVER PLATE		
THICKNESS (mm/in.)	B & S GAUGE	Anti-Tarnish Silver
0.5 / 0.020	24	
0.8 / 0.031	20	
1 / 0.039	18	
1.5 / 0.059		
 Available in 1 - 2 business days (minimums apply)		
Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.		

# Plate & Sheet



You will be certain to find a solder suited to your requirements in Umicore's wide range of Ready Stock solder coupons. Although technically brazing alloys based on their melting ranges, the jewellery industry traditionally refers to this set of alloys as solders.

Each alloy in this set has been designed to flow, wet and bond fabricating and or casting alloy segments together, at appropriate superheat over the liquidus temperature shown when standard metal joining techniques and procedures are used.

Each lot of solder alloy manufactured at Umicore is checked to confirm it is Cadmium and Lead free (< 50 ppm each) by current definitions. In addition, the Nickel content is also determined for each lot processed to ensure it is under 100 ppm in solder alloys that do not include Nickel as an alloying component. This provides options for your consideration when you need to ensure soldered items remain Nickel free after joining. Please refer to the SDS to determine which alloys contain Ni.

In addition:

#### Karat gold solders

- Are plumb for the karat ordered to help ensure Hallmarking regulations are met for the final assembled item.
- Are available in several colours for each karat. Since a trace of solder often remains and could therefore be visible between the two pieces joined, this provides options for your consideration when designing the assembled item.
- Are available in the standard flow range classifications (extra easy, easy, medium, and hard) for step soldering applications. Approximate coupon weight is 1.5 – 2 grams.

#### Silver Solders

- Three solders are offered, one each in the easy, medium and hard melting range class.
- The silver content of each alloy is over 60% to help ensure Hallmarking regulations are met for the final assembled item. Approximate coupon weight is 16 to 16.5 grams.

#### Platinum Solders

- We carry the typical range of alloys for the Platinum jewellery industry, i.e the name of the solder is its liquidus temperature. Approximate coupon weight is 2 to 2.5 grams.

PLATINUM SOLDER SPECIFICATIONS				
PART NO.	ALLOY	LIQUIDUS	SOLIDUS	DENSITY gr/cm <sup>3</sup>
SC90W000000	P1000	1000°C/1832°F	980°C/1796°F	10.24
SCPTS000000	P1200	1200°C/2192°F	1150°C/2102°F	13.53
SCPTS000000	P1400	1400°C/2552°F	1390°C/2534°F	16.25
SC95W000000	P1650 (95% platinum)	1650°C/3002°F	1550°C/2822°F	19.23

## GOLD SOLDER SPECIFICATIONS

PART NO.	ALLOY	LIQUIDUS	SOLIDUS	DENSITY gr/cm <sup>3</sup>
SC10YEE0000	10K Yellow Extra-Easy	708°C/1306°F	654°C/1209°F	11.69
SC10YE00000	10K Yellow Easy	730°C/1346°F	705°C/1301°F	11.76
SC10YM00000	10K Yellow Medium	763°C/1369°F	743°C/1369°F	11.95
SC10YH00000	10K Yellow Hard	795°C/1463°F	777°C/1431°F	12.27
SC10WE00000	10K White Easy	784°C/1443°F	772°C/1422°F	11.93
SC10WH00000	10K White Hard	925°C/1697°F	860°C/1580°F	11.66
SC14YE00000	14K Yellow Easy	728°C/1342°F	685°C/1265°F	12.77
SC14YM00000	14K Yellow Medium	774°C/1425°F	757°C/1395°F	13.13
SC14YH00000	14K Yellow Hard	807°C/1485°F	795°C/1463°F	13.44
SC14WE00000	14K White Easy	738°C/1360°F	712°C/1314°F	12.72
SC14WH00000	14K White Hard	865°C/1589°F	800°C/1472°F	12.40
SC14RM00000	14K Red Medium	830°C/1526°F	815°C/1499°F	12.81
SC18YE00000	18K Yellow Easy	750°C/1382°F	726°C/1339°F	14.53
SC18YM00000	18K Yellow Medium	781°C/1438°F	765°C/1409°F	14.66
SC18YH00000	18K Yellow Hard	804°C/1479°F	797°C/1467°F	14.71
SC18WE00000	18K White Easy	800°C/1472°F	760°C/1400°F	14.47
SC18WH00000	18K White Hard	902°C/1656°F	888°C/1630°F	14.51
SC19WM00000	19K White	877°C/1611°F	827°C/1521°F	15.62

## SILVER SOLDER SPECIFICATIONS

PART NO.	ALLOY	LIQUIDUS	SOLIDUS	DENSITY gr/cm <sup>3</sup>
SCSSWI04E00	I04 Easy	680°C/1256°F	640°C/1249°F	9.18
SCSSWI02M00	I02M Medium	730°C/1346°F	720°C/1328°F	9.68
SCSSWI03H00	I03H Hard	786°C/1446°F	764°C/1407°F	9.98



Umicore's Ready-Stock™ wire products are designed to meet the needs of both the high volume factory and the small volume bench jeweller. They are shipped in a half-hard state allowing you to use them "as-is" or anneal them for a softer temper. Providing optimum ductility and strength as well as superior performance, Ready-Stock™ wire products are made to exact dimensions and are drawn through dedicated precision finishing dies. They offer the finest quality and the best surface finish with tight tolerance controls, and come in a wide range of sizes. Thanks to our same-day delivery service, Ready-Stock™ wire is ideal for "just-in-time" fabrication, repair and sizing, and ensures your creations not only start off perfect but also finish that way.

## Round Wire

Our processing ensures consistency of chemistry and mechanical properties along the length of wire or sheet. Our multi-die in-line drawing equipment applies the best reduction schedules interspaced with precise annealing processes. The end result is consistent physical properties for the temper ordered as well as exceptional cleanliness for the best wire quality available. See our Technical Tips section for more details.

**NOTE:** All Ready-Stock™ round wire up to 2 mm in diameter is available coiled. Thicker diameters are stocked in 30 cm/12" straight lengths. Minimums may apply. Annealing is available at extra charge.

### GOLD ROUND WIRE

DIAMETER (mm/in.)	SHAPE/ SIZE	B & S GAUGE	10KY	10KW	14KY	14KW	14KW-Pd	18KY	18KW
0.25 / 0.010	•	30	●	●	●	●	•	•	●
0.3 / 0.012	•	29	•	•	●	●	•	•	•
0.4 / 0.016	•	26	•	•	•	•	•	●	•
0.5 / 0.020	•	24	●	•	●	●	•	●	•
0.65 / 0.026	•		●	•	●	•	•	•	•
0.75 / 0.030	•		●	●	●	●	•	●	•
0.8 / 0.031	•	20	●	•	●	●	•	•	•
0.9 / 0.035	•		●	•	•	•	•	•	•
1 / 0.039	•	18	●	●	●	●	●	●	●
1.3 / 0.051	•		●	•	●	•	•	•	•
1.5 / 0.059	•		●	•	●	●	•	●	●
2 / 0.079	●	12	●	●	●	●	•	●	•

● Available in 1 - 2 business days (minimums apply)

• Available in 6 - 7 business days (minimums apply)

Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.

## SILVER ROUND WIRE

DIAMETER (mm/in.)	SHAPE / SIZE	B & S GAUGE	STERLING SILVER
0.25 / 0.010	•	30	●
0.30 / 0.012	•	29	●
0.32 / 0.013	•	28	●
0.35 / 0.014	•	27	●
0.4 / 0.016	•	26	●
0.5 / 0.020	•	24	●
0.57 / 0.022	•	23	●
0.6 / 0.024	•		●
0.65 / 0.026	•	22	●
0.7 / 0.028	•		●
0.72 / 0.028	•	21	●
0.75 / 0.030	•		●
0.8 / 0.031	•	20	●
0.85 / 0.033	•		●
0.9 / 0.035	•	19	●
1 / 0.039	•	18	●
1.1 / 0.043	•		●
1.15 / 0.045	•	17	●
1.25 / 0.049	•		●
1.3 / 0.051	•	16	●
1.4 / 0.055	•		●
1.5 / 0.059	•		●
1.6 / 0.063	•		●
1.65 / 0.065	•	14	●
1.75 / 0.069	•		●
2 / 0.079	●	12	●
2.3 / 0.091	●	11	●
2.5 / 0.098	●		●
2.6 / 0.102	●	10	●
3 / 0.118	●		●
3.25 / 0.128	●	8	●
3.5 / 0.138	●		●
4 / 0.157	●		●

● Available in 1 - 2 business days (minimums apply)

Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.

## 19KW GOLD ROUND WIRE

DIAMETER (mm/in.)	B & S GAUGE	19KW
1 / 0.039	18	●
1.5 / 0.059		●
2 / 0.079	12	●

● Available in 1 - 2 business days (minimums apply)

## ANTI-TARNISH SILVER ROUND WIRE

DIAMETER (mm/in.)	B & S GAUGE	Anti-Tarnish Silver
0.75 / 0.030		●
0.8 / 0.031	20	●
1 / 0.039	18	●
1.25 / 0.049		●
1.5 / 0.059		●
2 / 0.079	12	●

● Available in 1 - 2 business days (minimums apply)

Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.

## FINE SILVER ROUND WIRE

DIAMETER (mm/in.)	B & S GAUGE	FS
1.6 / 0.063		●

● Available in 1 - 2 business days (minimums apply)

Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.

## PLATINUM WIRE 95/5 RU

DIAMETER (mm/in.)	B & S GAUGE	90W
0.25 / 0.010	30	●
0.5 / 0.020	24	●
1.0 / 0.039	18	●
2 / 0.079	12	●






















● Available in 1 - 2 business days (minimums apply)

Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.

## Half-Round Wire

Half-Round Wire is primarily used to size “tiffany-shaped” rings that cannot be sized up by stretching. Stretching of up to one full finger size is possible with seamless wedding bands but not with bands made from wire. Umicore’s half-round wire exhibits a full tiffany shape with minimal flat-side on its edge. This wire configuration is more difficult to shape but the end result is worth the effort, as it matches the shape of the ring more closely. Both you and your customer will appreciate the difference! Wire is available in 12 inch straight lengths; coils are available through custom order.































































See the Technical Tips section of this catalogue for more details.


SILVER HALF ROUND WIRE		
DIMENSIONS (height x width) (mm / in.)	SHAPE / SIZE	Sterling Silver
0.50 x 1.0 / 0.020 x 0.039	-	
0.75 X 1.5 / 0.030 x 0.059	-	
1.0 X 1.5 / 0.039 x 0.059	-	
1.0 X 2.0 / 0.039 x 0.079	-	
1.0 X 2.5 / 0.039 x 0.098	-	
1.0 X 4.0 / 0.039 x 0.157	-	
1.0 X 5.0 / 0.039 x 0.197	-	
1.5 X 2.0 / 0.059 x 0.079	-	
1.5 X 2.5 / 0.059 x 0.098	-	
1.5 X 3.0 / 0.059 x 0.118	-	
1.5 X 3.5 / 0.059 x 0.138	-	
1.5 X 4.0 / 0.059 x 0.157	-	
1.5 X 5.0 / 0.059 x 0.197	-	
1.5 X 6.0 / 0.059 x 0.236	-	
1.5 X 7.0 / 0.059 x 0.276	-	
2.0 X 3.0 / 0.079 x 0.118	-	
2.0 X 4.0 / 0.079 x 0.157	-	
2.0 X 5.0 / 0.079 x 0.197	-	
2.0 X 6.0 / 0.079 x 0.236	-	
2.0 X 8.0 / 0.079 x 0.315	-	
 Available in 1 - 2 business days (minimums apply)		
Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.		

## Rectangular (Flat) Wire

Rectangular wire dies are a true test of any diemaker's ability. Ready-Stock™ rectangular wire features parallel sides and corners with the smallest radius, allowing you to achieve a balance between something that is “too sharp to handle” and something that is “too rounded to use”. Another obstacle that we have to overcome is the tendency of rectangular wire to twist or “helix” during production. With Umicore, you are assured flat wire with minimal helixing and the quality finish you expect. Wire is available in 12 inch straight lengths; coils are available through custom order.

See the Technical Tips section of this catalogue for more details.

GOLD RECTANGULAR WIRE							
DIMENSIONS (height x width) (mm / in.)	SHAPE / SIZE	10KY	10KW	14KY	14KW	18KY	18KW
1.0 X 2.0 / 0.039 x 0.079			•	•	•	•	•
1.0 X 2.5 / 0.039 x 0.098			•	•	•	•	•
1.0 X 3.0 / 0.039 x 0.118			•		•	•	•
1.0 X 4.0 / 0.039 x 0.157			•	•	•	•	•
1.0 X 4.5 / 0.039 x 0.177			•	•	•	•	•
1.0 X 5.0 / 0.039 x 0.197			•	•	•	•	•
1.0 X 6.0 / 0.039 x 0.236			•	•	•	•	•
1.5 X 2.0 / 0.059 x 0.079						•	•
1.5 X 2.5 / 0.059 x 0.098				•	•	•	•
1.5 X 3.0 / 0.059 x 0.118						•	
1.5 X 4.0 / 0.059 x 0.157							
1.5 X 5.0 / 0.059 x 0.197						•	•
1.5 X 6.0 / 0.059 x 0.236					•	•	•
2.0 X 3.0 / 0.079 x 0.118			•			•	•
2.0 X 4.0 / 0.079 x 0.157			•		•	•	•
2.0 X 5.0 / 0.079 x 0.197			•			•	•
2.0 X 6.0 / 0.079 x 0.236			•				

 Available in 1 - 2 business days (minimums apply)      • Available in 6 - 7 business days (minimums apply)

Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.

## SILVER RECTANGULAR WIRE

DIMENSIONS (height x width) (mm / in.)	SHAPE / SIZE	Sterling Silver
1.0 x 2.0 / 0.039 x 0.079	■	■■
1.0 x 2.5 / 0.039 x 0.098	■	■■
1.0 x 3.0 / 0.039 x 0.118	■	■■
1.0 x 4.0 / 0.039 x 0.157	■■	■■
1.0 x 4.5 / 0.039 x 0.177	■■	■■
1.0 x 5.0 / 0.039 x 0.197	■■	■■
1.0 x 6.0 / 0.039 x 0.236	■■■	■■
1.0 x 7.0 / 0.039 x 0.276	■■■■	■■
1.0 x 8.0 / 0.039 x 0.315	■■■■■	■■
1.5 x 2.0 / 0.059 x 0.079	■	■■
1.5 x 2.5 / 0.059 x 0.098	■	■■
1.5 x 3.0 / 0.059 x 0.118	■	■■
1.5 x 3.5 / 0.059 x 0.138	■	■■
1.5 x 4.0 / 0.059 x 0.157	■	■■
1.5 x 5.0 / 0.059 x 0.197	■■	■■
1.5 x 6.0 / 0.059 x 0.236	■■■	■■
2.0 x 3.0 / 0.079 x 0.118	■	■■
2.0 x 3.5 / 0.079 x 0.138	■	■■
2.0 x 4.0 / 0.079 x 0.157	■	■■
2.0 x 4.5 / 0.079 x 0.177	■	■■
2.0 x 5.0 / 0.079 x 0.197	■	■■
2.0 x 6.0 / 0.079 x 0.236	■■	■■
2.0 x 8.0 / 0.079 x 0.315	■■■	■■
2.5 x 4.0 / 0.098 x 0.157	■	■■
2.5 x 6.0 / 0.098 x 0.236	■■	■■

■■■ Available in 1 - 2 business days (minimums apply)

Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.

# Square Wire

Umicore's Ready-Stock™ square wire exhibits the perfect balance between crisp 90° corners and corners with just enough relief to prevent breakage. This quality allows you to start your creations with the sharpness you need and the ability to soften them as desired. Wire is available in 12 inch straight lengths; coils are available through custom order. Please note our 19K white is only available in soft temper.

See the Technical Tips section of this catalogue for more details.

GOLD SQUARE WIRE									
DIAMETER (mm/in.)	SHAPE / SIZE	10KY	10KW	14KY	14KW	14KD	18KY	18KW	18KW-Pd
1.5 / 0.059		•	•		•	•	•	•	•
2 / 0.079						•			•
3 / 0.118						•			
4 / 0.157									
5 / 0.197		•	•		•	•	•		•
6 / 0.236			•			•	•	•	

Available in 1 - 2 business days (minimums apply)      • Available in 6 - 7 business days (minimums apply)

Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.

SILVER SQUARE WIRE		
DIAMETER (mm/in.)	SHAPE / SIZE	Sterling Silver
0.75 / 0.030	•	
1 / 0.039	•	
1.25 / 0.049	•	
1.5 / 0.059	•	
1.75 / 0.069	•	
2 / 0.079	•	
2.5 / 0.098	•	
2.75 / 0.108	•	
3 / 0.118	•	
4 / 0.157		
5 / 0.197		
6 / 0.236		

Available in 1 - 2 business days (minimums apply)

Other Custom Sizes Available. Please contact our Customer Service Department

19KW GOLD SQUARE WIRE			
DIAMETER (mm/in.)	SHAPE / SIZE	B & S GAUGE	19KW
3 / 0.118			
4 / 1.157			

Available in 1 - 2 business days (minimums apply)

Other Custom Sizes Available. Please contact our Customer Service Department

PLATINUM SQUARE WIRE 95/5 RU			
DIAMETER (mm/in.)	SHAPE / SIZE	B & S GAUGE	90W
2 / 0.079		12	
3 / 0.118			
4 / 1.157			








Available in 1 - 2 business days (minimums apply)








Other Custom Sizes Available. Please contact our Customer Service Department








Umicore's standard nickel white alloys are all Grade 1 on the World Gold Council whiteness index. Specifically for square wires Umicore also carries other nickel white alloys that exhibit a superior ease of working and are especially well suited for traditional metal working techniques. These alloys are Grade 2 on the whiteness index. They are available by custom order. Please contact us for your requirements.



# 14k Red Gold Wire Products

14K RED SQUARE WIRE		
DIAMETER (mm/in.)	SHAPE / SIZE	14KR
1.5 / 0.059		
3 / 0.118		
4 / 0.157		
 Available in 1 - 2 business days (minimums)		
Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.		

14K RED ROUND WIRE			
DIAMETER (mm/in.)	SHAPE / SIZE	B & S GAUGE	14KR
1 / 0.039		18	
1.5 / 0.059			
2 / 0.079		12	
 Available in 1 - 2 business days (minimums apply)			
Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.			

14K RED RECTANGULAR WIRE		
DIMENSIONS (height x width) (mm / in.)	SHAPE / SIZE	14KR
2.0 x 4.0 / 0.079 x 0.157		
2.0 x 6.0 / 0.079 x 0.236		
2.0 x 7.0 / 0.079 x 0.276		
 Available in 1 - 2 business days (minimums apply)		
Other Custom Sizes Available. Please contact our Customer Service Department for all other sizes and delivery time.		

# 14K Red Wire



## Ring Tube

Starting with vertical continuous cast tube, we combine swaging, plug drawing, bright annealing, quench annealing and state of the art straightening to provide consistent wall thickness and a bright die drawn finish on both ID and OD surfaces.

The tube is the optimal feed stock for ring blanks, finished ring CNC protocol and broad industrial applications.

Available in a variety of white, yellow, red and green karat gold alloys, sterling silver, Arctic Fox™ anti-tarnish silver, platinum and palladium.

*Please note that Ring Tube is only available by custom order.*

## Ring Tube



## Resilient Elegance

### Explore Umicore's Arctic Fox™ Anti-Tarnish Silver Grain, Tube, Wire and Plate

This complete range of Arctic Fox™ products allows you to create timeless jewellery that fully exploits the pristine elegance of silver.

The exceptional 92.7% silver content bestows on them a feeling of exclusive luxury.

Arctic Fox™ anti-tarnish silver products are available from stock through our Ready-Stock™ program.



## Arctic Fox™ Anti-Tarnish Silver



# Umicore’s sustainable development approach comes in first instance from The Umicore Way.

Umicore’s sustainable development approach comes in first instance from The Umicore Way. This document sets out the vision of the Group and the values we seek to promote and serves as a reference point for all our employees. Supplementary to The Umicore Way, we have also developed a comprehensive framework for ethical business practice through our Code of Conduct and a document which sets out our management philosophy and governance principles -the Corporate Governance Charter.

Further detailed information can be found by clicking on the following link: <https://jim-ca.umicore.com/en/sustainability>. Umicore believes that success depends upon creating and maintaining a relationship of trust and professionalism with its main stakeholders namely its employees, commercial partners, shareholders, government authorities and the public. In 2012 Umicore has been rated one of the most ethical companies in the world and one of the 100 most sustainable corporations. Umicore wants to produce Materials for a Better Life. Our Canadian Manufacturing site of the business unit Jewellery and Industrial Metals is therefore ISO 14001 (environmental) certified and is also a certified member of the Responsible Jewellers Council. In addition to this, our jewellery products for the North American market comply with the most strict guidelines with respect to jewellery for children.

IMPURITY LEVELS FOR ALL JEWELLERY PRODUCTS		
NICKEL	LEAD	CADMIUM
100 ppm (For alloys without nickel as alloying element)	50 ppm	50 ppm

The minimum and maximum amount of cold-working that metal can be subjected to prior to annealing are critical features associated with successful processing of precious metal alloys. Insufficient deformation and over-annealing can cause excessive grain growth and “orange peel” defects. Over-working can cause stress cracking.

# Fabricated Product Only

COLD-WORKING REDUCTION SCHEDULE				
TEMPER	INCREASE IN B&S GAUGE	PLATE REDUCTION IN THICKNESS	ROUND WIRE REDUCTION IN DIAMETER	ROUND WIRE REDUCTION IN AREA
Soft	0	0.00%	0.00%	0.00%
1/4 Hard	1	10.9%	10.9%	20.7%
1/2 Hard	2	20.7%	20.7%	37.1%
3/4 Hard	3	29.4%	29.4%	50.1%
Hard	4	37.1%	37.1%	60.5%
Extra Hard	6	50.1%	50.1%	75.1%
Spring	8	60.5%	60.5%	84.4%
Extra Spring	10	68.6%	68.6%	90.2%
Special Spring	12	75.1%	75.1%	93.8%
Maximum Cold-Work Yellow Gold Plate	20	89.9%		

COLD-WORKING & ANNEALING SPECIFICATIONS			
KARAT	COLOUR	% COLD WORK	NOTES & ANNEALING TEMPERATURES
10K	Yellow	70 - 90%	Anneal all at 700C/1292F, Furnace cool reducing atmosphere
14K	Yellow	70 - 90%	Anneal all at 700C/1292F, Furnace cool reducing atmosphere
18K	Yellow	70 - 90%	Anneal all at 700C/1292F, Furnace cool reducing atmosphere
10K	Nickel-White	60 - 75%	Cold work soft materials at least 60% before annealing to help avoid fire cracking. Anneal all at 800C/1472F , Water quench
14K	Nickel-White	60 - 75%	Cold work soft materials at least 60% before annealing to help avoid fire cracking. Anneal all at 800C/1472F , Water quench
18K	Nickel-White	60 - 75%	Cold work soft materials at least 60% before annealing to help avoid fire cracking. Anneal all at 800C/1472F , Water quench
14D	Palladium-White	60 - 75%	Anneal all at 800°C / 1472°F, quench at 750°C / 1382°F
18D	Palladium-White	60 - 75%	
Pt10lr	White	70 - 90%	Anneal at 1000° - 1100°C / 1832° - 2012°F
Pt5Ru	White	70 - 90%	Anneal at 1000° - 1100°C / 1832° - 2012°F
Pt5HTA	White	40 - 50%	Anneal at 1000° - 1100°C / 1832° - 2012°F with quench
Sterling Silver	White	70 - 90%	Anneal at 650° 700°C / 1202° - 1292°F

## ALLOY WEIGHT CONVERSIONS

METAL ON HAND	Pt10lr	Pt5Ru	95PtHTA	24K	22K	18K	18D	14K	14D	10K	FINE SILVER	STERLING SILVER
Pt10lr	1.00	0.96	0.89	0.90	0.83	0.72	0.73	0.60	0.66	0.53	0.49	0.48
Pt5Ru	1.04	1.00	0.93	0.93	0.86	0.75	0.76	0.63	0.69	0.56	0.51	0.50
95PtHTA	1.12	1.08	1.00	1.00	0.93	0.80	0.82	0.68	0.74	0.60	0.55	0.54
24K	1.12	1.07	1.00	1.00	0.92	0.80	0.82	0.67	0.74	0.60	0.54	0.54
22K	1.21	1.16	1.08	1.08	1.00	0.87	0.89	0.73	0.80	0.65	0.59	0.58
18K	1.39	1.34	1.24	1.25	1.15	1.00	1.02	0.84	0.92	0.74	0.68	0.67
18D	1.36	1.31	1.22	1.22	1.13	0.98	1.00	0.82	0.90	0.73	0.66	0.66
14K	1.66	1.59	1.48	1.49	1.37	1.19	1.22	1.00	1.09	0.88	0.81	0.80
14D	1.51	1.46	1.35	1.36	1.25	1.09	1.11	0.91	1.00	0.81	0.74	0.73
10K	1.87	1.80	1.67	1.68	1.55	1.35	1.38	1.13	1.24	1.00	0.91	0.90
FINE SILVER	2.05	1.97	1.83	1.84	1.69	1.47	1.50	1.24	1.35	1.09	1.00	0.99
STERLING SILVER	2.08	2.00	1.86	1.86	1.72	1.49	1.53	1.25	1.37	1.11	1.01	1.00
BRASS	2.60	2.49	2.32	2.33	2.14	1.86	1.90	1.57	1.71	1.38	1.27	1.25
WAX	22.67	21.80	20.27	20.27	18.75	16.00	16.68	13.80	14.93	12.01	11.01	10.90

## B&S GAUGE CONVERSION

B&S GAUGE	MILLIMETERS	INCHES DECIMAL	INCHES FRACTION	B&S GAUGE	MILLIMETERS	INCHES DECIMAL	INCHES FRACTION	B&S GAUGE	MILLIMETERS	INCHES DECIMAL	INCHES FRACTION
1	7.348 mm	.2893"			3.175 mm	.1250"	1/8"	19	0.912 mm	.0359"	
2	6.543 mm	.2576"		9	2.906 mm	.1144"		20	0.812 mm	.0320"	
	6.350 mm	.2500"	1/4"		2.778 mm	.1094"	7/64"		0.795 mm	.0313"	1/32"
	5.953 mm	.2344"	15/64"	10	2.588 mm	.1019"		21	0.723 mm	.0285"	
3	5.827 mm	.2294"			2.381 mm	.0937"	3/32"	22	0.642 mm	.0253"	
	5.556 mm	.2187"	7/32"	11	2.304 mm	.0907"		23	0.573 mm	.0226"	
4	5.189 mm	.2043"		12	2.052 mm	.0808"		24	0.511 mm	.0201"	
	5.154 mm	.2031"	11/64"		1.984 mm	.0781"	5/64"	25	0.455 mm	.0179"	
	4.762 mm	.1875"	3/16"	13	1.828 mm	.0720"		26	0.405 mm	.0159"	
5	4.621 mm	.1819"		14	1.628 mm	.0641"			0.396 mm	.0156"	1/64"
	4.366 mm	.1719"	11/64"		1.588 mm	.0625"	1/16"	27	0.360 mm	.0142"	
6	4.115 mm	.1620"		15	1.449 mm	.0571"		28	0.321 mm	.0126"	
	3.969 mm	.1562"	5/32"	16	1.291 mm	.0508"		29	0.286 mm	.0113"	
7	3.664 mm	.1443"			1.191 mm	.0469"	3/64"	30	0.255 mm	.0100"	
	3.572 mm	.1406"	9/64"	17	1.149 mm	.0453"					
8	3.263 mm	.1285"		18	1.024 mm	.0403"					



GIVEN	REQUIRED	*OR/	FACTOR
<b>WEIGHT</b>			
dwt	grams	multiply	1.5552
dwt	kg	divide	643.004
Dwt	oz	divide	20
grams	dwt	divide	1.5552
grams	kg	divide	1000
grams	oz	divide	31.1035
kg	dwt	multiply	643.004
kg	grams	multiply	1000
kg	oz	multiply	32.1035
oz	dwt	multiply	20
oz	grams	multiply	31.1035
oz	kg	divide	32.1507
<b>\$/Unit Weight</b>			
\$/dwt	\$/grams	divide	1.5552
\$/dwt	\$/kg	multiply	643.004
\$/dwt	\$/oz	multiply	20
\$/grams	\$/dwt	multiply	1.5552
\$/grams	\$/kg	multiply	1000
\$/grams	\$/oz	multiply	31.1035
\$/kg	\$/dwt	divide	643.004
\$/kg	\$/grams	divide	1000
\$/kg	\$/oz	divide	32.1507
\$/oz	\$/dwt	divide	20
\$/oz	\$/grams	divide	31.1035
\$/oz	\$/kg	multiply	32.1507
<b>Length</b>			
mm	cm	divide	10
mm	metres	divide	1000
mm	inches	divide	25.4
mm	feet	divide	304.8
cm	mm	multiply	10
cm	metres	divide	100
cm	inches	divide	2.54
cm	feet	divide	30.48
metres	mm	multiply	1000
metres	cm	multiply	100
metres	inches	multiply	39.37
metres	feet	divide	0.3048
inches	mm	multiply	25.4
inches	cm	multiply	2.54
inches	metres	divide	39.37
inches	feet	divide	12
feet	mm	multiply	304.8
feet	cm	multiply	30.48
feet	metres	multiply	0.3048
feet	inches	multiply	12



## Metallic Refining Services

Gold	3-Day or 7-Day Settlements
Silver	2-Week Settlement
Platinum Group Metals (PGM)	4-Week Settlement
Dental Alloys	4-Week Settlement

## Stone Recovery

Recovery of precious stones and refining of gold from jewellery.

## Sweeps Refining Services

Gold/Silver	12 Day or 4 Week Settlements
PGM	6-Week Settlement

## Assay Services

Fire Assay, Silver Titration, Gravimetric, Atomic Absorption, ICP

## Return Options

- Ready-Stock™ Catalogue Products
- Custom Products
- Fine Metal
- Payment By Cheque or Wire Transfer
- Credit to Your Account (towards product or Accounts Receivable)
- Credit to Consignment (to be returned as product, fine metal or sold at a future market price)
- Investment Bars

# Services

The constant pursuit of exceptional customer service consists of much more than a catchy advertising headline or a flashy sales brochure. It's a philosophy...a commitment...a code of ethics...that a company lives by every day at every level in everything it does.

At Umicore, we've adopted a policy of continuous improvement because we're not content to settle for something that is just "good enough". We believe there's always room for improvement, and we want to do an even better job to achieve the highest level of quality and service that is possible.

We trust this ongoing dedication to serving your needs with quality; reliability and integrity will continue to deserve your loyalty and trust.

At Umicore, we're committed to providing superior customer service and to offering the most technologically advanced products in the industry.

Feel free to put us to the test for quality, service and value for all your precious metal needs. Our goal is to exceed your expectations at every opportunity!

FULL METAL DESCRIPTION LEGEND				
10KY = 10K Yellow Gold	10KW = 10K White Gold	14KY = 14K Yellow Gold	14KW = 14K White Gold	14KW-Pd = 14K Palladium-White
18KY = 18K Yellow Gold	18KW = 18K White Gold	18KW-Pd = 18K Palladium-White	19KW = 19K White Gold	95W = 95/5 Platinum/Ruthenium
SSW = Sterling Silver    FSW = Fine Silver    SSA = Anti-Tarnish Silver    Fine PD = Fine Palladium				

When ordering by Full Description, your order will look like this:

PRODUCT	KARAT	COLOUR	DIMENSIONS	QUANTITY*
Half-round wire	10K	Yellow	2.00 x 4.00 mm	15 cm

## Shipping Information

Whether you're ordering by phone, fax or e-mail, most Ready-Stock™ items are shipped the same-day if the order is received before 3:00PM EST (except Friday, received before 1pm). Orders received after 3:00PM EST (Fridays after 1pm) are shipped the following business day. Annealing and coiling or spooling of our wire products may require an additional day. When an order notes mixed priority delivery—some items marked same-day and other items marked next-day—you can either "split your order" to receive individual items as soon as possible, or choose to have the entire order "shipped complete". In an effort to save you multiple shipping charges, in the event an item is out of stock, Umicore's standard practice is to ship mixed priority orders complete. Please specify your particular preference at the time of ordering. Your Ready-Stock™ order will be shipped via any of our approved courier services with whom we have established security and discounted rates throughout North America.

## Customer Care

*For inquiries and additional information please contact*

**Umicore Precious Metals Canada Inc.**

451 Denison Street  
Markham, ON L3R 1B7  
Phone: 1-905-475-9566  
Toll Free Phone: 1-800-263-1669  
Fax: 1-905-475-0703  
Toll Free Fax: 1-800-827-4779  
[www.umicorepreciousmetals.com](http://www.umicorepreciousmetals.com)  
[canada-salesweb@am.umicore.com](mailto:canada-salesweb@am.umicore.com)

**Umicore Precious Metals USA Inc.**

300 Wampanoag Trail  
Riverside, RI 02915  
Toll Free: 1-877-795-5060  
Toll Free Fax: 1-877-455-0651  
[www.umicorepreciousmetals.com](http://www.umicorepreciousmetals.com)  
[usa-salesweb@am.umicore.com](mailto:usa-salesweb@am.umicore.com)

