



Standard Specifications for Seamless Wedding Bands (Blanks)

Umicore's business unit Jewellery and Industrial Metals provides an unrivalled wide range of precious metals products and related services to the jewellery industry and to a variety of industrial applications. Its North American production site is both ISO9001 and ISO14001 certified.

The 'Standard Specifications' series define the standard specifications for custom orders. They correspond to the needs of the majority of the precious metals industry in North America and illustrate most of Umicore's production capabilities. Should you, however, have a request that seems to fall outside what is published here, then please don't hesitate to contact us for further assistance. Umicore updates its 'Standard Specifications' regularly based on customer feedback, market trends and technological developments.

For each product the 'Standard Specifications' show:

- Product name and description
- Characteristics needed to fully define the product and a drawing illustrating the definition of those, where appropriate
- Available materials for these products
- Standard production capabilities and tolerances
- Temper
- Standard packaging

In order to speed up the processing of product inquiries and orders we encourage you to use the terminology used in the 'Standard Specifications' and to clearly indicate any requests that deviate from these 'Standard Specifications', such as tighter specifications.

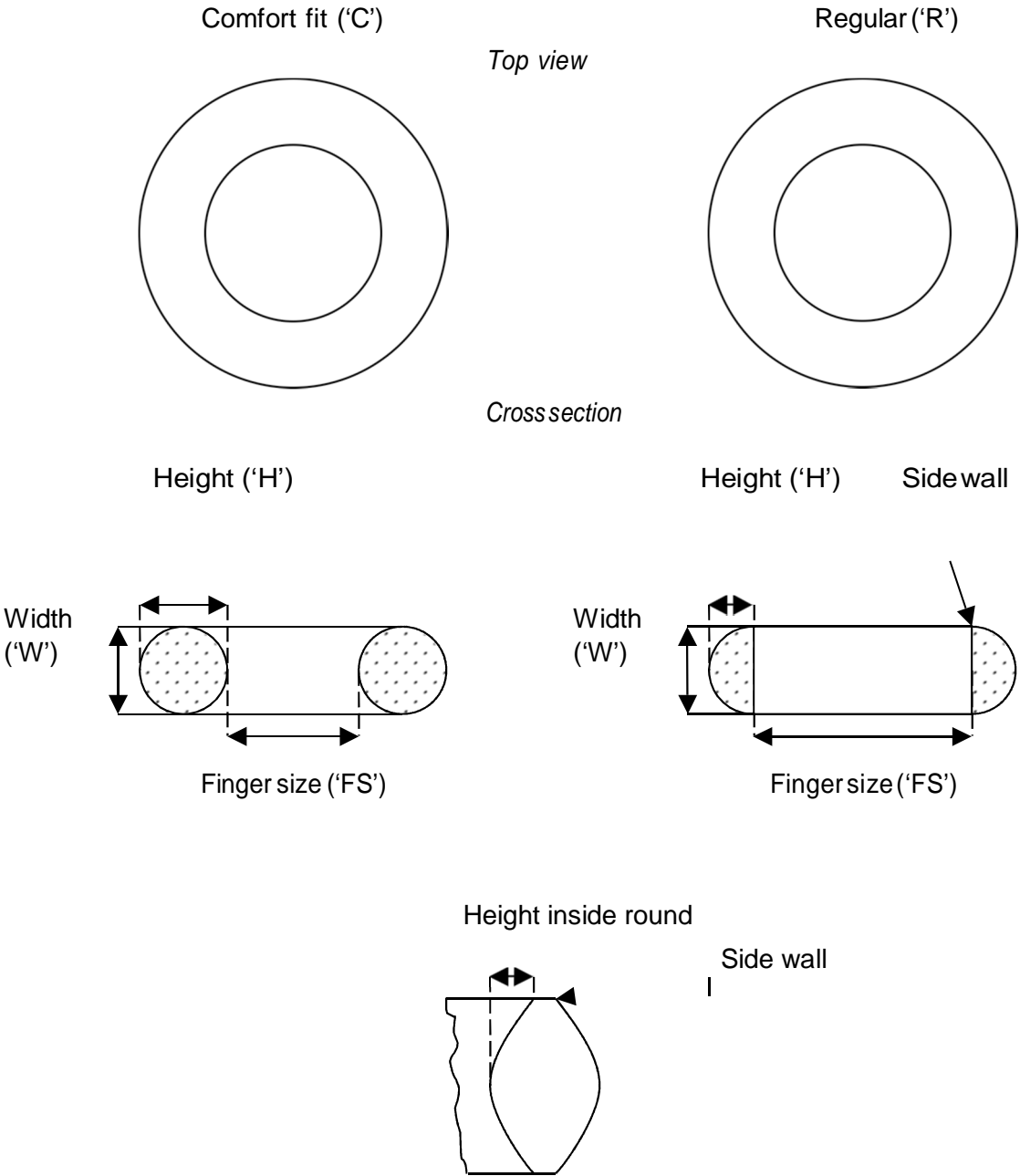
Throughout the 'Standard Specification' series all dimensions are provided in mm and temperatures in °C. Conversions to inches, feet and °F are for reference only, unless otherwise specified.

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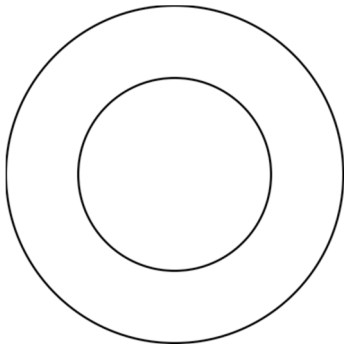
Definitions¹

Half Round Rings “Tiffany Style”



¹ Drawings are not to scale.

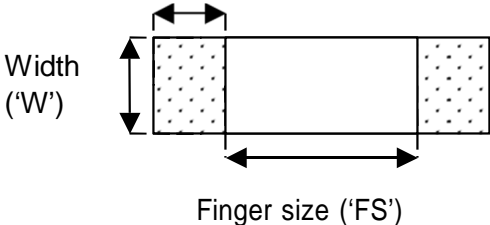
Rectangular Rings



Top view

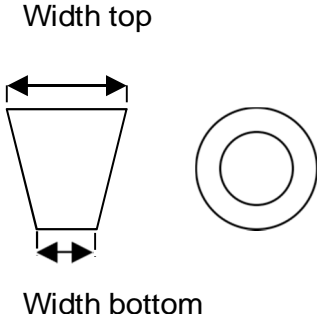
Height ('H')

Cross section

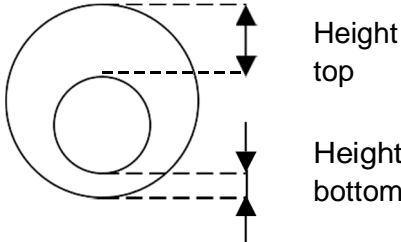


Tapered Rings

High Low Rings

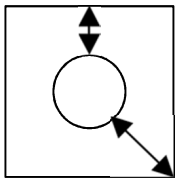


Side views



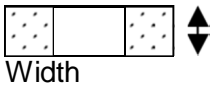
Side view

Square Rings



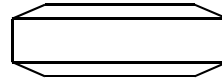
Height 2 *Top view*

Height 1



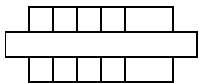
Cross section

Bevelled Edge



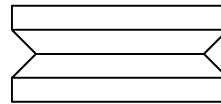
Side view

Facetted Edge



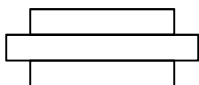
Side view

V Groove



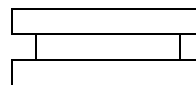
Side view

Step Cut



Side view

Channel Cut



Side view

Gold and Silver

Half Round Rings “Tiffany Style”

Product Characteristics:

- Material
- Finger Size
- Width
- Height
- Side Wall²
- “Regular” or “Comfort fit” or “Polished oval flat side”
- Tolerances (if different from the ‘Standard Specifications’)
- Vickers hardness or temper³
- Surface finish and quality
- Special cuts
- Millgrain, finish and engraving

Available materials:

From stock: 10Y, 10W, 14Y, 14W, 18Y, 18W, 18G, 18R, ANT, SSW

Made to order: 10G, 10R, 14G, 14R, Brass, SCU, 19Y, 19D, 22Y

Production Capabilities:

	REGULAR		COMFORT FIT	
	Minimum	Maximum	Minimum	Maximum
FINGER SIZE	2.5	15	3	15
WIDTH	1.5 mm/0.059”	10.0 mm/0.394”	2.0 mm/0.079”	10.0 mm/0.394”
HEIGHT	0.8 mm/0.003”	2.7 mm/0.106” ⁴	1.25 mm/0.005”	2.7 mm/0.106” ⁵
SIDE WALL	0.254 mm/0.01” ⁶		0.254 mm/0.01” ⁷	

² The side wall is also known as flat side.

³ For standard hardness values of different alloys please consult the ‘Standard Specifications for Tube’ available on www.umicorepreciousmetals.com.

⁴ Maximum height for red and green gold is 2.7 mm/0.106”.

⁵ Maximum height for red and green gold is 2.7 mm/0.106”.

⁶ Minimum side wall is 0.625 mm/0.025” if there is a millgrain.

⁷ Minimum side wall is 0.625 mm/0.025” if there is a millgrain.

Dome Guidelines:
Minimum Side Wall (inches)

W																		
H	2.0 mm/0.079"		2.5 mm/0.098"		3.0 mm/0.118"		3.5 mm/0.138"		4.0 mm/0.158"		4.5 mm/0.177"		5.0 mm/0.197"		5.5 mm/0.217"		6.0 mm/0.236"	
	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C
1.0 mm/0.039"	0.020		0.015		0.010		0.010		0.010		0.010		0.010		0.010		0.010	
1.1 mm/0.043"	0.020		0.020		0.015		0.010		0.010		0.010		0.010		0.010		0.010	
1.2 mm/0.047"	0.025	0.010	0.020	0.010	0.015	0.010	0.015	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.3 mm/0.051"	0.025	0.010	0.025	0.010	0.020	0.010	0.015	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.4 mm/0.055"	0.030	0.020	0.025	0.010	0.025	0.010	0.020	0.010	0.015	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.5 mm/0.059"	0.030	0.025	0.030	0.015	0.030	0.015	0.020	0.010	0.015	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.6 mm/0.063"	0.035	0.025	0.035	0.015	0.030	0.015	0.025	0.015	0.020	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.7 mm/0.067"	0.035	0.030	0.035	0.020	0.035	0.020	0.030	0.015	0.020	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.8 mm/0.071"	0.040	0.035	0.040	0.025	0.040	0.025	0.035	0.015	0.030	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.9 mm/0.075"	0.045	0.040	0.045	0.030	0.045	0.030	0.040	0.020	0.030	0.015	0.015	0.010	0.010	0.010	0.010	0.010	0.010	0.010
2.0 mm/0.079"	0.050	0.045	0.050	0.035	0.045	0.030	0.040	0.025	0.035	0.020	0.020	0.015	0.015	0.010	0.010	0.010	0.010	0.010
2.1 mm/0.083"	0.055	0.050	0.055	0.040	0.050	0.035	0.045	0.030	0.040	0.025	0.025	0.020	0.020	0.015	0.015	0.010	0.015	0.010
2.2 mm/0.087"	0.060	0.055	0.060	0.045	0.055	0.040	0.050	0.030	0.045	0.030	0.030	0.025	0.025	0.020	0.020	0.015	0.020	0.010
2.3 mm/0.091"	0.060	.055	0.060	0.045	0.055	0.040	0.050	0.030	0.045	0.030	0.030	0.025	0.025	0.020	0.020	0.015	0.020	0.010
2.4 mm/0.095"	0.065	0.060	0.065	0.050	0.060	0.045	0.055	0.035	0.050	0.035	0.035	0.030	0.030	0.025	0.025	0.020	0.025	0.015
2.5 mm/0.098"	0.070	0.065	0.070	0.055	0.065	0.050	0.060	0.040	0.055	0.040	0.040	0.035	0.035	0.030	0.030	0.025	0.030	0.020
2.6 mm/0.102"	0.075	0.070	0.075	0.065	0.070	0.055	0.065	0.045	0.060	0.045	0.045	0.040	0.040	0.035	0.035	0.030	0.035	0.025
2.7 mm/0.107"	0.080	0.075	0.080	0.070	0.075	0.060	0.070	0.050	0.065	0.050	0.050	0.045	0.045	0.040	0.040	0.035	0.040	0.030

W																
H	6.5 mm/0.256"		7.0 mm/0.276"		7.5 mm/0.295"		8.0 mm/0.315"		8.5 mm/0.335"		9.0 mm/0.354"		9.5 mm/0.374"		10.0 mm/0.394"	
	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C
1.0 mm/0.039"	0.010		0.010		0.010		0.010		0.010		0.010		0.010		0.010	
1.1 mm/0.043"	0.010		0.010		0.010		0.010		0.010		0.010		0.010		0.010	
1.2 mm/0.047"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.3 mm/0.051"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.4 mm/0.055"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.5 mm/0.059"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.6 mm/0.063"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.7 mm/0.067"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.8 mm/0.071"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.9 mm/0.075"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
2.0 mm/0.079"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
2.1 mm/0.083"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
2.2 mm/0.087"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
2.3 mm/0.091"	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
2.4 mm/0.095"	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
2.5 mm/0.098"	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
2.6 mm/0.102"	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020
2.7 mm/0.107"	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020

Please call us for widths of more than 10 mm/0.394".

Additional dimensions for comfort fit:

- Height inside round: 0.5mm/0.02"
- Polished oval flat side: c. 0.254 mm/0.01" (edges of the flat side are broken)

Tolerances on dimensions:

Standard tolerance on all dimensions is ± 0.05 mm/0.002".

Temper:

Standard temper is soft. Other tempers are available on request.

Surface:

Uniform in appearance, of typical colour for the temper and alloy ordered, and free of orange peel, foreign inclusions, oxide or tarnish, scratches greater than 0.02 mm/0.0008" and blisters. Items ordered at soft temper may not appear shiny when first received. Once polished the surface will shine up.

Polishing available on request.

Packaging:

Shipped in plastic bags.

Rectangular Rings

Product Characteristics:

- Material
- Finger Size
- Width
- Height
- "Regular" or "Comfort fit"
- Tolerances (if different from the 'Standard Specifications')
- Vickers hardness or temper⁸
- Surface finish and quality
- Special cuts
- Millgrain, finish and engraving

Available materials:

From stock: 10Y, 10W, 14Y, 14W, 18Y, 18W, 18G, 18R, SCU, ANT, SSW

Made to order: 10G, 10R, 14G, 14R, Brass, 19Y, 19D, 22Y

Production Capabilities:

	REGULAR		COMFORT FIT	
	Minimum	Maximum	Minimum	Maximum
FINGER SIZE	3	15	3	15
WIDTH	1.0 mm/0.039"	15.0 mm/0.591"	2.0 mm/0.079"	10.0 mm/0.394"
HEIGHT	0.5 mm/0.020"	3.0 mm/0.118" ⁹	1.0 mm/0.039"	3.0 mm/0.118" ¹⁰

Tolerances on Dimensions:

Standard tolerance on all dimensions is ± 0.05 mm/0.002".

Temper:

Standard temper is soft. Other tempers are available on request.

Surface:

Uniform in appearance, of typical colour for the temper and alloy ordered, and free of orange peel, foreign inclusions, oxide or tarnish, scratches greater than 0.02 mm/0.0008" and blisters. Items ordered at soft temper may not appear shiny when first received. Once polished the surface will shine up.

Polishing available on request.

Packaging:

Shipped in plastic bags.

⁸ For standard hardness values of different alloys please consult the 'Standard Specifications for Tube' available on www.umicorepreciousmetals.com.

⁹ Maximum height for red and green gold is 2.7 mm/0.106".

¹⁰ Maximum height for red and green gold is 2.7 mm/0.106".

Tapered Rings

Product Characteristics:

- Material
- Finger Size
- Variance: difference between width top and width bottom
- Height
- Sidewall¹¹
- 'Half round' or 'Rectangular'
- 'Regular' or 'Polished oval flat side'
- Tolerances (if different from the 'Standard Specifications')
- Vickers hardness or temper¹²
- Surface finish and quality
- Special Cuts
- Millgrain, finish and engraving

Available materials:

From stock: 10Y, 10W, 14Y, 14W, 18Y, 18W, 18G, 18R, SCU, ANT, SSW

Made to order: 10G, 10R, 14G, 14R, Brass

Production Capabilities:

	MINIMUM	MAXIMUM	STANDARD
VARIANCE	0.5 mm/0.020"	4.0 mm/0.158"	2 mm/0.079"
BOTTOMWIDTH	2.0 mm/0.079"		
HEIGHT	0.5 mm/0.020"	2.7 mm/0.106"	

Tapering cannot be done on comfort rings.

Half Round Style:

- Side wall is measured before tapering and increases with taper angle.
- Half round style cannot be done on high low taper rings.

Please call us with your detailed requirements.

Tolerances on dimensions:

Standard tolerance on all dimensions is ± 0.05 mm/0.002".

¹¹ The side wall is also known as flat side.

¹² For standard hardness values of different alloys please consult the 'Standard Specifications for Tube' available on www.umicorepreciousmetals.com.

Temper:

Standard temper is soft. Other tempers are available on request.

Surface:

Uniform in appearance, of typical colour for the temper and alloy ordered, and free of orange peel, foreign inclusions, oxide or tarnish, scratches greater than 0.02 mm/0.0008" and blisters. Items ordered at soft temper may not appear shiny when first received. Once polished the surface will shine up.

Polishing available upon request.

Packaging:

Shipped in plastic bags.

High Low Rings

Product Characteristics:

- Material
- Finger Size
- Variance: difference between height top and height bottom
- Height
- Sidewall¹³
- 'Half round' or 'Rectangular'
- 'Regular' or 'Comfort fit' or 'Polished oval flatside'
- Tolerances (if different from the 'Standard Specifications')
- Vickers hardness or temper¹⁴
- Surface finish and quality
- Special Cuts
- Millgrain, finish and engraving

Available materials:

From stock: 10Y, 10W, 14Y, 14W, 18Y, 18W, 18G, 18R, SCU, ANT, SSW

Made to order: 10G, 10R, 14G, 14R, Brass

Production Capabilities:

Maximum variance: 1.0 mm/0.039"

Minimum height bottom:

- Regular: 1.0 mm/0.039"
- Comfort fit: 1.25 mm/0.049"

Please call us with your detailed requirements.

Tolerances on dimensions:

Standard tolerance on all dimensions is ± 0.05 mm/0.002". Standard tolerance on the variance is ± 0.1 mm/0.004".

Temper:

Standard temper is soft. Other tempers are available on request.

Surface:

Uniform in appearance, of typical colour for the temper and alloy ordered, and free of orange peel, foreign inclusions, oxide or tarnish, scratches greater than 0.02 mm/0.0008" and blisters. Items ordered at soft temper may not appear shiny when first received. Once polished the surface will shine up.

Polishing available on request.

Packaging:

Shipped in plastic bags.

¹³ The side wall is also known as flat side.

¹⁴ For standard hardness values of different alloys please consult the 'Standard Specifications for Tube' available on www.umicorepreciousmetals.com.

Square Rings

Product Characteristics:

- Material
- Finger Size
- Variance: the difference between Height 1 and Height 2
- Width
- Sidewall¹⁵
- 'Half round' or 'Rectangular'
- 'Regular' or 'Comfort fit' or 'Polished oval flatside'
- Tolerances (if different from the 'Standard Specifications')
- Vickers hardness or temper¹⁶
- Surface finish and quality
- Special Cuts
- Millgrain, finish and engraving

Available materials:

From stock: 10Y, 10W, 14Y, 14W, 18Y, 18W, 18G, 18R, SCU, ANT, SSW

Made to order: 10G, 10R, 14G, 14R, Brass

Production Capabilities:

	MINIMUM	MAXIMUM	COMMENTS
FINGER SIZE	3	15	No ½ or ¾ finger sizes for comfort fit rings.
WIDTH	1.5 mm/0.059"	15.0 mm/0.591"	Rectangular
	2.5 mm/0.098"	10.0 mm/0.394"	Half round
VARIANCE	0.4 mm/0.016"	1.2 mm/0.047"	Standard is 1.0 mm
HEIGHT 2	1.25 mm/0.049"		Comfort fit

Please call us with your detailed requirements.

Tolerances on dimensions:

Standard tolerance on all dimensions is ± 0.05 mm/0.002". Standard tolerance on the variance is ± 0.1 mm/0.004".

Temper:

Standard temper is soft. Other tempers are available on request.

Surface:

Uniform in appearance, of typical colour for the temper and alloy ordered, and free of orange peel, foreign inclusions, oxide or tarnish, scratches greater than 0.02 mm/0.0008" and blisters. Items ordered at soft temper may not appear shiny when first received. Once polished the surface will shine up.

Polishing available on request.

Packaging:

Shipped in plastic bags.

¹⁵ The side wall is also known as flat side.

¹⁶ For standard hardness values of different alloys please consult the 'Standard Specifications for Tube' available on www.umicorepreciousmetals.com.

Platinum and Palladium

Product Characteristics:

- Material
- Finger Size
- Width
- Height
- Side Wall¹⁸
- "Regular" or "Comfort fit" or "Polished oval flat side"
- Tolerances (if different from the 'Standard Specifications')
- Vickers hardness or temper¹⁹
- Surface finish and quality
- Special cuts
- Millgrain, finish and engraving

Available materials:

From stock: 90W, 95H, 95R, 95D

Made to order: Any other customer specified alloy.

Production Capabilities:

Half round and rectangular rings are available, both as regular and comfort fit.

FINGER SIZE:

- Minimum: 3
- Maximum: 15

WIDTH:

- Half round:
 - Regular: 2.0 mm/0.079" to 10.0 mm/0.394"
 - Comfort fit: 2.5 mm/0.098" to 10.0 mm/0.394"
- Rectangular:
 - Regular: 1.0 mm/0.039" to 15.0 mm/0.591"
 - Comfort fit: 2.5/0.098" to 10.0 mm/0.394"

HEIGHT:

- Finger size below 9: 0.8 mm/0.003" to 2.6 mm/0.102"²⁰
- Finger size 9 and up: 0.8 mm/0.003" to 2.4 mm/0.095"²⁰

¹⁸ The side wall is also known as flat side.

¹⁹ For standard hardness values of different alloys please consult the 'Standard Specifications for Tube' available on www.umicorepreciousmetals.com.

²⁰ For comfort fit the minimum height is 1.3 mm/0.051"

Minimum Side Wall (inches)

W																		
	2.0 mm/0.079"		2.5 mm/0.098"		3.0 mm/0.118"		3.5 mm/0.138"		4.0 mm/0.158"		4.5 mm/0.177"		5.0 mm/0.197"		5.5 mm/0.217"		6.0 mm/0.236"	
H	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C
1.0 mm/0.039"	0.020		0.015		0.010		0.010		0.010		0.010		0.010		0.010		0.010	
1.1 mm/0.043"	0.020		0.020		0.015		0.010		0.010		0.010		0.010		0.010		0.010	
1.2 mm/0.047"	0.025	0.010	0.020	0.010	0.015	0.010	0.015	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.3 mm/0.051"	0.025	0.010	0.025	0.010	0.020	0.010	0.015	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.4 mm/0.055"	0.030	0.020	0.025	0.010	0.025	0.010	0.020	0.010	0.015	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.5 mm/0.059"	0.030	0.025	0.030	0.015	0.030	0.015	0.020	0.010	0.015	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.6 mm/0.063"	0.035	0.025	0.035	0.015	0.030	0.015	0.025	0.015	0.020	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.7 mm/0.067"	0.035	0.030	0.035	0.020	0.035	0.020	0.030	0.015	0.020	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.8 mm/0.071"	0.040	0.035	0.040	0.025	0.040	0.025	0.035	0.015	0.030	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.9 mm/0.075"	0.045	0.040	0.045	0.030	0.045	0.030	0.040	0.020	0.030	0.015	0.015	0.010	0.010	0.010	0.010	0.010	0.010	0.010
2.0 mm/0.079"	0.050	0.045	0.050	0.035	0.045	0.030	0.040	0.025	0.035	0.020	0.020	0.015	0.015	0.010	0.010	0.010	0.010	0.010
2.1 mm/0.083"	0.055	0.050	0.055	0.040	0.050	0.035	0.045	0.030	0.040	0.025	0.025	0.020	0.020	0.015	0.015	0.010	0.015	0.010
2.2 mm/0.087"	0.060	0.055	0.060	0.045	0.055	0.040	0.050	0.030	0.045	0.030	0.030	0.025	0.025	0.020	0.020	0.015	0.020	0.010
2.3 mm/0.091"	0.060	0.055	0.060	0.045	0.055	0.040	0.050	0.030	0.045	0.030	0.030	0.025	0.025	0.020	0.020	0.015	0.020	0.010
2.4 mm/0.095"	0.065	0.060	0.065	0.050	0.060	0.045	0.055	0.035	0.050	0.035	0.035	0.030	0.030	0.025	0.025	0.020	0.025	0.015
2.5 mm/0.098"	0.070	0.065	0.070	0.055	0.065	0.050	0.060	0.040	0.055	0.040	0.040	0.035	0.035	0.030	0.030	0.025	0.030	0.020
2.6 mm/0.102"	0.075	0.070	0.075	0.065	0.070	0.055	0.065	0.045	0.060	0.045	0.045	0.040	0.040	0.035	0.035	0.030	0.035	0.025
2.7 mm/0.107"	0.080	0.075	0.080	0.070	0.075	0.060	0.070	0.050	0.065	0.050	0.050	0.045	0.045	0.040	0.040	0.035	0.040	0.030

W																
	6.5 mm/0.256"		7.0 mm/0.276"		7.5 mm/0.295"		8.0 mm/0.315"		8.5 mm/0.335"		9.0 mm/0.354"		9.5 mm/0.374"		10.0 mm/0.394"	
H	R	C	R	C	R	C	R	C	R	C	R	C	R	C	R	C
1.0 mm/0.039"	0.010		0.010		0.010		0.010		0.010		0.010		0.010		0.010	
1.1 mm/0.043"	0.010		0.010		0.010		0.010		0.010		0.010		0.010		0.010	
1.2 mm/0.047"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.3 mm/0.051"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.4 mm/0.055"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.5 mm/0.059"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.6 mm/0.063"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.7 mm/0.067"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.8 mm/0.071"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
1.9 mm/0.075"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
2.0 mm/0.079"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
2.1 mm/0.083"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
2.2 mm/0.087"	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
2.3 mm/0.091"	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
2.4 mm/0.095"	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
2.5 mm/0.098"	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015	0.015
2.6 mm/0.102"	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020
2.7 mm/0.107"	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020

Please call us for widths of more than 10mm/0.394".

Additional dimensions for comfort fit:

- Height inside round: 0.5mm/0.02"
- Polished oval flat side: c. 0.254 mm/0.01" (edges of the flat side are broken)

Tolerances on dimensions:

Standard tolerance on all dimensions is ± 0.10 mm/0.004".

Temper:

Standard temper is soft. Other tempers are available on request.

Surface:

Uniform in appearance, of typical colour for the temper and alloy ordered, and free of orange peel, foreign inclusions, oxide or tarnish, scratches greater than 0.02 mm/0.0008" and blisters. Items ordered at soft temper may not appear shiny when first received. Once polished the surface will shine up.

Polishing available on request.

Packaging:

Shipped in plastic bags.

Orca™ Bonded Ring Blanks

Umicore has perfected the demanding diffusion bonding process in the Orca™ bond. Orca™ bond ring blanks offer a solderless solution, ultimate product strength and a variety of new design opportunities in gold and silver.

Two Tone Rings

Available in combinations of yellow, white, red and green gold at 10, 14 and 18 karat next to each other.

Finger sizes 3 to 15.

Standard heights:

▣ 0.8 mm to 2.7 mm (regular)

▣ 1.25 mm to 2.7 mm (comfort fit)

Please inquire about our capabilities for high low, tapered and square Orca™ bonded rings.

Minimum thickness of each layer is 1.0 mm.¹

For further specifications please inquire for our standard specifications for seamless rings.

It is not recommended to stretch Orca™ bond products but rather to order them at their final size.

¹ 1 mm inlay is currently not available in 18K red gold.

Millgrain, Finish and Engraving

Millgrain, surface finish and engraving enhance the design of the blank. They can typically be added to most ring blanks.

Millgrain

Production Capabilities:

	MINIMUM	MAXIMUM
FINGER SIZE	3	15
WIDTH	3.0 mm/0.118"	10 mm/0.394"
HEIGHT	1.2 mm/0.047"	3.0 mm/0.118"
SIDEWALL	0.8 mm/0.030" to 0.9 mm/0.035"	

Our standard millgrain styles are shown in a separate document available on our website www.umicorepreciousmetals.com.

Finish

Four types of surface finish are available:

- Shiny
- Satin finish (fine grit)
- Carbide finish (coarse grit)
- Hammer finish

Engraving

Custom engraving styles as well as hammer finish are available. Umicore does not offer any hand engraving. Not all engraving styles are available for platinum rings. Please contact us to discuss the details of your requirements.

Our standard engraving styles are shown in a separate document available on our website www.umicorepreciousmetals.com. For these standard styles we have the following requirements:

Minimum height:

- Regular: 1.25 mm/0.049"
- Comfort fit: 1.70 mm/0.067"

Standard Finger Sizes

FINGER SIZE	ID (MM)	ID (INCHES)
2.5	13.43	.529
3	13.84	.545
3.5	14.25	.561
4	14.65	.577
4.5	15.06	.593
5	15.44	.608
5.5	15.87	.625
6	16.13	.641
6.5	16.69	.657
6.75	16.89	.665
7	17.12	.674
7.5	17.50	.689
8	17.90	.705
8.5	18.31	.721
9	18.72	.737
9.5	19.13	.753
10	19.53	.769
10.25	19.68	.775
10.5	19.94	.785
11	20.24	.801
11.5	20.75	.817
12	21.15	.833
12.5	21.56	.849
13	21.97	.865
13.5	22.37	.881
14	22.78	.897
14.5	23.19	.913
15	23.60	.929

Standard tolerance on standard fingers sizes is $\pm 0.05\text{mm}/0.002''$.

Other dimensions and tolerances may be available on request.

Metal Description Legend

Gold

CODE	DESCRIPTION
10Y	10 karat yellow gold
10W	10 karat white gold
10G	10 karat green gold
10R	10 karat red gold
14Y	14 karat yellow gold
14W	14 karat white gold
14D	14 karat palladium white gold
14G	14 karat green gold
14R	14 karat red gold
18Y	18 karat yellow gold
18W	18 karat white gold
18D	18 karat palladium white gold
18G	18 karat green gold
18R	18 karat red gold
19Y	19 karat yellow gold
19W	19 karat white gold
22Y	22 karat yellow gold

KARAT	MINIMUM GOLD CONTENT	COMMENTS
9	37.50%	High karat alloys available on request
10	41.67%	High karat alloys available on request
14	58.33%	High karat alloys available on request
18	75.00%	High karat alloys available on request
19	79.17%	High karat alloys available on request
22	91.67%	High karat alloys available on request
24	99.90%	99.95% and 99.99% available on request

Silver

CODE	DESCRIPTION	MINIMUM SILVER CONTENT	COMMENTS
SSW	Sterling silver	92.50%	93.5% silver available on request
FIS	Fine silver	99.90%	99.95% and 99.99% available on request
COS	Coin silver	89.93%	
SOF	Solder flush	92.52%	
SCU	Silver Copper	93.50%	
ANT	Arctic Fox™ anti-tarnish silver	92.70%	

Platinum

CODE	MINIMUM PLATINUM CONTENT	DESCRIPTION
90W	90.00%	90% Platinum 10% Iridium
95W	95.00%	95% Platinum 5% Iridium
95H	95.20%	95% Platinum Heat Treatable®
95R	95.20%	95% Platinum 5% Ruthenium
FPT	99.90%	99.9% Platinum (99.99% available on request)

Palladium

CODE	MINIMUM PALLADIUM CONTENT	DESCRIPTION
FPD	99.90%	99.9% Palladium
95D	95.00%	95% Palladium 5% Silver and Gallium

Impurity Levels for all Jewellery Products

Nickel	90 ppm (for alloys without nickel as alloying element)
Lead	40 ppm
Cadmium	40 ppm

The information and data provided are based on results from internal procedures. Duplication of exact material property values at another site cannot be warranted as there may be differences in the equipment and procedures used. The end user is responsible for determining product suitability for the intended application. Refer to the Material Safety Data Sheet (MSDS) before use.

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