



We proudly present ULTRA INFILTRANT,

the world's leading globally patented copper infiltration alloy technology system. Years of painstaking research and development has led to the introduction of the global powder metal industries only wrought / wire infiltration solution. We are grateful for the honor and privilege to serve you. We sincerely appreciate your consideration and we truly value our relationship with you and your company.

With profound respect and admiration,

Paul A. Rivest, Chairman & CEO



ULTRA INFILTRANT

YOUR WROUGHT/WIRE INFILTRATION SOLUTION.

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Preform Design



Ultra Infiltrant is the world's leading patented wrought/wire copper infiltration technology solution. It's manufactured in a variety of wire diameters and cross-sections to accommodate virtually any preform geometry. The rigid wire form eliminates all the process and cost associated with compaction of copper powder infiltrants and improves mechanical & metallurgical metrics well in excess of MPIF Standard 35. A solid line of thinking.

Preform Design Examples

▼ Arc Rings & Ring Segments



▼ Round & Squared Wire Slugs



▼ Single-Turn, Butt-End Rings



▼ Multi-Turn Rings



▼ Squared Wire Valve Seat Insert Rings



▼ Diamond Shaped Valve Seat Insert Rings





Technical Specifications

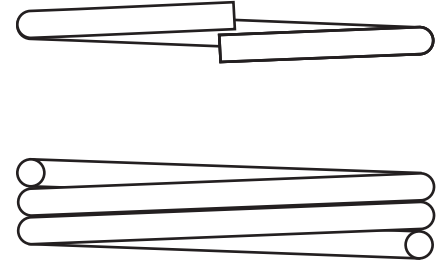


Standard Round & Squared Wire Sizes

One Wire Diameter Helix Rings

Round Wire		
Diameter	G/IN	Min ID
0.060	0.407	0.200
0.072	0.586	0.240
0.093	0.978	0.300
0.130	1.910	0.400
0.153	2.470	0.475
0.175	3.462	0.550
0.185	3.869	0.575

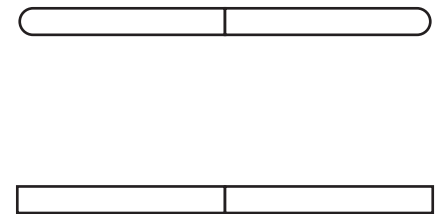
Squared Wire		
X-Y	G/IN	Min ID
0.228	6.950	0.725
0.354	16.580	1.500



Non-Helix Butt-End Rings

Round Wire		
Diameter	G/IN	Min ID
0.060	0.407	0.380
0.072	0.586	0.450
0.093	0.978	0.575
0.130	1.910	0.825
0.153	2.470	1.000
0.175	3.462	1.125
0.185	3.869	1.250

Squared Wire		
X-Y	G/IN	Min ID
0.228	6.950	1.500
0.354	16.580	2.500



Custom wire sizes available. Please allow additional lead time.

Chemistry Specification

Copper	Remainder	Target
Zinc	2.75% – 5.00%	3.40%
Manganese	0.02% – 0.08%	.05%
Iron	1.75% – 2.75%	2.00%
Nickel	0.10% – 0.30%	0.20%



↘ Processing & Financial Advantages

- Lose the need to inventory bulky infiltrant powder
- Lose the development and maintenance of infiltrant tooling
- Lose the tremendous cost associated with compacting presses to produce the infiltrant
- Lose the labor and overhead costs related to producing the infiltrant
- Lose the additional lubricant that can contaminate the sintering furnace
- Easy to handle — no breakage problems means less waste
- Improved productivity — faster assembly of the infiltrant with the green compact
- Easy to automate placement of the infiltrant — strong, regular shape
- Less waste and infiltrant scrap — lower production costs
- Precise infiltrant weight control — uniform, consistent infiltrated product
- Consistent response in sintering — no segregated powder ingredients
- Higher infiltrant efficiency — no lubricant loss, no residue
- Uniform copper distribution in the final part — consistent size, strength, hardness
- Final part ready to use — no residue, no erosion
- Final invoice pricing based on COMEX Copper on date of shipment as reported on metalprices.com. For full pricing explanation and examples, visit ultra-infiltrant.com/downloads.php, and download the file "Ultra Infiltrant Quotation & Invoice Pricing Explanation.pdf".

↘ Mechanical & Metallurgical Advantages

- No residue, no erosion — need for secondary operations reduced
- Increased infiltrated density — homogeneous alloy improves capillary action
- Increased apparent hardness — independent testing proved as high as 32HRC
- Improved machinability — balanced infiltrated response increases part surface saturation
- Increased transverse rupture strength — independent testing proved as high as 219,000 psi
- Infiltrate graphite iron, tool and stainless steel
- See ultra-infiltrant.com/downloads.php for more information

↘ Solidify your process with Ultra Infiltrant

Less waste, easier production, superior product...what more is there? Ultra Infiltrant revolutionizes the PM industry by eliminating all the negatives associated with infiltrant powders and improves on the process as a whole. The net result: how about loyal customers and a boost to your bottom line? That's what Ultra Infiltrant offers so put it to work and get started on a solid line of thinking.