

Goodfellow

Serving The Needs of Science and Industry Worldwide

Au service de la Science et de l'Industrie dans le monde entier

Weltweiter Lieferant für Wissenschaft und Industrie

Metals and Alloys
Métaux et Alliages
Metalle und Legierungen

Ceramics
Céramiques
Keramiken

Polymers
Polymères
Polymere

Composites
Composites
Verbundwerkstoffe



Goodfellow Corporation

125 Hookstown Grade Road
Coraopolis, PA 15108-9302 PA 15108-9302
USA

Tel: 1-800-821-2870 (USA and Canada)
or +1 724 695 7060
Fax: 1-800-283-2020 (USA and Canada)
or +1 724 695 7063

Goodfellow Cambridge Limited

Ermine Business Park
HUNTINGDON
PE29 6WR
England

Tel: 011 44 1480 424 800
or 011 44 1480 424 800
Fax: 011 44 1480 424 900
or 011 44 1480 424 900

Goodfellow SARL

229, rue Solférino
F-59000 Lille
France

Tel : 0800 917 241 (numéro vert)
or +44 1480 424 813
Fax : 0800 917 313 (numéro vert)
or +44 1480 424 900

Goodfellow GmbH

Am Alstertwiete 3
D-20099 Hamburg
Germany

Tel: 0800 1000 579 (freecall)
or +44 1480 424 810
Fax: 0800 1000 580 (freecall)
or +44 1480 424 900

Goodfellow (Shanghai) Trading Co., Ltd

Room 803, Centro Build, No. 568 Hengfeng Road
SHANGHAI
200070

The People's Republic of China
Tel: 00 86 21 6112 1560

Standard Price List for Silver

CONTENTS

Introduction	4
Product Descriptions	5
Hazards Information	9
General Information	10
Order information	11
Company Details	14
Conditions of Sale	15
Metal	19
INDEX	48

Introduction

Goodfellow is well known as a specialist supplier of small to medium size quantities of metals, alloys, ceramics, polymers and other materials to meet the research, development and specialist production requirements of science and industry worldwide. We realise that "small" means different things to different people, but we consider small to mean any quantity from a few grammes to a few kilos.

Goodfellow offers two distinct services to meet the requirements of our customers:

- The first meets the needs of our customers who need small quantities of products from our standard range of materials within 24-48 hours.
- The second service is for those who require larger quantities or further processing of our standard products or who need an item which falls within our general area of supply expertise.

The range of materials offered by Goodfellow is extensive, as are the forms in which the various products are available. This Catalog provides a detailed overview of our standard products which are available from stock. Full details of all of these items, including prices and technical information, can be found in our web Catalog at www.goodfellowusa.com.

Materials

Metals and Alloys

Goodfellow supplies virtually all of the pure metals from Aluminum to Zirconium as well as a comprehensive range of alloys. Most are available in a variety of forms, including rod, wire and foil. The Catalog details those materials which are available as standard products from stock. Custom-made items are also available, so please contact us if you are unable to identify the item you require.

Ceramics

The ceramic materials offered by Goodfellow have been carefully chosen and include both the established as well as more recently developed products. All are available as either standard or custom-made products in a variety of forms and sizes. The Catalog details those items which are

available from stock. For ceramic components made to customer drawings, our Ceramic and Glass Division would be delighted to help. Please visit www.goodfellow-ceramics.com for further information.

Polymers

The range of polymers supplied by Goodfellow is broad and includes both the familiar as well as some of the more unusual or recently developed materials. The Catalog details those items which are available from stock; please contact us if you are unable to find the item you specifically require.

Compounds & Intermetallics

Goodfellow can supply aluminides, borides and silicides as well as other intermetallics and compounds. The majority of these items are made to order, and the Catalog details those which are available. Please contact us with details of your requirements.

Composites

Some examples of these materials are listed in the Catalog. As some of these are manufactured on a custom-made basis, please contact us with details of your requirements.

Glasses

Goodfellow offers two distinct types of glass products. The first are generally silica-based and transparent. Generally, these products are made to order for customers, so we do not list them in our Catalog, however, they are available through the Goodfellow Ceramic and Glass Division. Please contact us with your requirements.

The second type of glass product is commonly referred to as "metallic glasses" or "glassy metals". In contrast to crystalline metals and alloys with highly ordered atomic structures, these are non-crystalline (amorphous) metals or, more usually, alloys. Our Catalog details those glassy metals which are available from stock; please contact us if you are unable to find the item you specifically require.

Product Descriptions



Bar

A straight length of rectangular, square or oval section material.

Tolerances

Section dimensions:	≤ 10mm	± 10%
	> 10mm	± 1mm
Length:	< 100mm	± 1mm
	≥ 100mm	+ 5% / -1%



Bolt

A threaded pin that can be screwed into a nut or a tapped hole to fasten items together. Bolts are available with different head styles and also in metric and inch-threaded sizes.

Tolerances

See item



Chopped Fiber

Fibers cut into short lengths called cut, staple or chopped fiber.

Tolerances

Fiber diameter:	± 25%
Number of strands:	± 10%
Tex number:	± 10%
Length:	+ 5% / -1%



Crucible

A vessel in which other materials may be heated or melted, usually at high temperatures.

Tolerances

Height:	± 10%
Inside Dimensions:	± 10%
Outside Dimensions:	± 10%



Fabric

Woven fabrics are made by the regular interlacing of two arrays of yarns at right angles to each other, these being referred to as the warp and weft (see also Non-woven fabric).

Tolerances

Fabric thickness:	± 25%
Number of yarns:	± 10%
Tex number:	± 10%
Size (linear dimension):	< 100mm ± 5mm
	≥ 100mm ± 5%



Fiber

Yarns or tows consisting of several approximately parallel individual filaments, each filament usually being smaller in diameter than a monofilament. Yarns contain a defined number of filaments, typically three to several hundred; tows contain thousands of filaments whose number is only defined approximately. Both are primarily specified by their linear density measured in "tex", the weight in grams of a 1km length of material.

Tolerances

Fiber diameter:	± 25%
Number of strands:	± 10%
Tex number:	± 10%
Length:	+ 5% / -1%



Film

A non-metallic sheet material with a thickness < 0.5mm.

Tolerances

Thickness:	± 20%
Size (linear dimension):	< 100mm ± 1mm
	≥ 100mm + 2% / -1%



Flake

Flat, irregularly shaped pieces of material. A maximum flake size is indicated but individual flakes may vary greatly in size.

Tolerances

Dimensions shown are nominal

Product Descriptions



Foam

A low density, permeable structure of cells and continuous ligaments offering a high surface area to volume ratio, and also a high strength to weight ratio. Owing to the nature of this material, dimensions are nominal.



Foil

Thin sheets of pure metal and metal alloys. Due to their fragile nature, some foils are coated on one side with an acrylic or polyester support. Where foils are supported they are indicated in the detailed item description.

Tolerances

Thickness: < 0.010mm ± 25%
 0.01-0.05mm ± 15%
 > 0.050mm ± 10%
 Size (linear dimension): < 100mm ± 1mm
 ≥ 100mm + 2% / -1%



Granule

Pellets of an approximately regular shape. Granules may vary in size and, therefore, the dimensions stated are nominal. In addition, the shape of a granule may vary from item to item.

Tolerances

Dimensions shown are nominal



Honeycomb

A cellular structure similar in appearance to natural honeycomb. Owing to the nature of this material, dimensions are nominal.

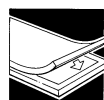


Insulated Wire

A single or multiple flexible strand of metal or alloy with an insulating sheath.

Tolerances

Wire diameter: ± 10%
 Length: + 5% / -1%
 Insulation thickness: Nominal values only



Laminate

Layers of material which have been bonded together by the use of heat, pressure and, possibly, adhesive.

Tolerances

Thickness: ± 10%
 Size (linear dimension): ≤ 100mm ± 1mm
 > 100mm + 2% / -1%



Lump

A solid piece of material with no defined shape.

Tolerances

Dimensions shown are nominal



Mesh

Mesh is available as either a woven wire or electroformed product; in all cases, the quoted aperture sizes are nominal. Wire mesh: a material which is woven from metal wires to provide a thin grid with a regular series of holes. Electroformed mesh: a product made by electroplating the mesh geometry through a mask onto a substrate which is subsequently etched away.

Tolerances

Thickness: woven: ± 10%
 electroformed: ± 20%
 Wire diameter: ± 10%
 Size (linear dimension): < 100mm ± 1mm
 ≥ 100mm + 2% / -1%



Metallized Film

Film which is coated with a metal. The thickness of the metal is measured and described in terms of the material's specific electrical resistance in ohms per square.

Tolerances

Thickness: ± 10%
 Size (linear dimension): < 100mm ± 1mm
 ≥ 100mm + 2% / -1%

Product Descriptions



Microfoil

An extremely thin sheet of metal or alloy mounted on a permanent support. This support **cannot** be removed without destroying the Microfoil.

Tolerances

Thickness: $\pm 30\%$
 Size: $\pm 20\%$



Microleaf

An extremely thin sheet of metal mounted on a removable support. Microleaf is not available for metals which are too brittle to be free standing.

Tolerances

Thickness: $\pm 30\%$
 Size: $\pm 20\%$



Monofilament

A single strand of a non-metallic material.

Tolerances

Diameter: $\pm 20\%$
 Length: $+ 5\% / -1\%$



Non-Woven Fabric

Non-woven fabrics are made by methods other than weaving or knitting, the yarns and fibers being held together, often quite loosely, by means other than geometric interlacing. Due to the open and porous nature of this material, all other dimensions are nominal.

Tolerances

Size (linear dimension): $< 100\text{mm} \quad \pm 5\text{mm}$
 $\geq 100\text{mm} \quad \pm 5\%$



Nut

Generally a flat piece of material with a threaded hole which can be screwed onto a bolt to fasten items together. Nuts typically have a hexagonal external shape. Nuts are available in metric and inch-threaded sizes.

Tolerances

See item

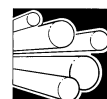


Powder

Small particles with an approximately defined size range. Those materials described as alloy precursors are not true alloys - they are made by sintering a blend of powders of the component metals to achieve alloying by diffusion. The resultant cake is ground and sieved to the required particle size range. Unless otherwise stated, the particle sizes shown are for guidance only. We do not guarantee either any particular size distribution between the quoted minimum and maximum sizes, or a specific particle shape.

Tolerances

Dimensions shown are nominal



Rod

A straight length of circular section material.

Tolerances

Diameter:	$\leq 10\text{mm}$	$\pm 10\%$
	Polymer	$+ 20\% / -10\%$
	Ceramic	$+ 20\% / -10\%$
$> 10\text{mm}$		$\pm 5\%$
	Ceramic	$+ 20\% / -10\%$
	Polymer	$+ 20\% / -10\%$
Length:	$< 100\text{mm}$	$\pm 1\text{mm}$
	$\geq 100\text{mm}$	$+ 5\% / -1\%$

Product Descriptions



Sheet

Flat material with a thickness >0.5mm.

Tolerances

Thickness:		± 10%
	Ceramic	± 20%
	Composite	± 20%
	Polymer	± 20%
Size (linear dimension):	< 100mm	± 1mm
	≥ 100mm	+ 2% / - 1%



Single Crystal

A material grown as a monocrystal, generally to a specific orientation, dimension and surface finish. It may contain a dopant. Single crystals are usually made to order.

Tolerances

Orientation:	± 3°
Size:	Sizes shown are nominal



Sphere

A regular solid or hollow three-dimensional form in which every cross-section is a circle. Spheres are available with standard or precision tolerances, and can be supplied with different surface finishes depending on the material.

Tolerances

Diameter (standard):	± 5%
Diameter (precision):	see item



Sputtering Target

A high purity material used as a source for sputtering, a cold vaporization process in which atoms are physically removed from the target surface by ion bombardment.

Tolerances

Thickness:	± 0.5mm
Size:	± 0.5mm



Tube

A hollow length of material normally circular in section. Most tubes are straight except those made of flexible polymer.

Tolerances

Outside diameter:	≤ 2mm	± 0.05mm
	Polymer	± 10%
	Ceramic	± 10%
> 5mm	± 0.1mm	
	Polymer	± 10%
	Ceramic	± 10%
Wall thickness:	> 5mm	± 5%
	Polymer	± 10%
	Ceramic	± 10%
Length:	± 10%	
	Polymer	± 20%
	Ceramic	± 20%
Length:	< 100mm	± 1mm
	≥ 100mm	+ 5% / - 1%



Washer

A thin, flat piece of material with a hole in the middle, used in conjunction with bolts and nuts to distribute the load of a threaded fastener.

Tolerances

See item



Wire

A single or multiple flexible strand of pure metal or alloy.

Tolerances

Wire diameter:	± 10%
Length:	+ 5% / - 1%

Hazards Information

HAZARDS

All materials listed in this catalog, whatever the quantity supplied, are sold for research or development purposes. We make no warranty that the materials are fit for a particular purpose. In purchasing materials from this catalog, customers should be aware that there may be hazards associated with their use and in the handling of them. Complete toxicological or hazard investigations are the responsibility of the customer. Ingestion or contact with the human body may be harmful. The responsibility for the safe use of our products rests with the customer. All materials should be handled by qualified personnel familiar with laboratory procedures and who are familiar with the nature of the material and any necessary precautions which should be taken in the handling, use and storage of the products. The customer shall be responsible for the control and use of the products offered in this catalog whether alone or in combination with other articles or substances or in any other manner whatsoever.

HAZARD SYMBOLS



C

Corrosive

Chemicals which may destroy living tissue when in contact with them.



D

Dangerous when wet

Chemicals which, in contact with water or damp air, evolve highly flammable or toxic gases and vapours in dangerous quantities.



E

Explosive

Chemicals which may react exothermically without atmospheric oxygen, quickly evolving gases, and which under defined test conditions detonate, quickly deflagrate or upon heating explode when partially confined.



F+

Extremely Flammable

Chemicals which when finely divided (small particle size) are liable to ignite spontaneously.



Xn

Harmful

Chemicals which may cause death or acute or chronic damage to health when inhaled, ingested or absorbed via the skin.



F

Highly flammable

Chemicals which will ignite after contact with flame, or which will evolve highly flammable gases in contact with water.



Xi

Irritant

Non-corrosive chemicals which, through immediate, prolonged or repeated contact with the skin or mucous membrane may cause inflammation.



R

Radioactive

Chemicals which will emit ionising radiation without being subject to irradiation. General precautions for Toxic chemicals apply to those of low activity. For chemicals of medium or high activity special regulations apply.



T

Toxic

Chemicals which may cause death or acute or chronic damage to health when inhaled, ingested or absorbed via the skin.



T+

Very Toxic

Chemicals which in low quantities cause death or acute or chronic damage to health when inhaled, ingested or absorbed via the skin.

General Information

Analyses

Typical Analysis :

Where appropriate a typical analysis is given. All figures are parts per million (ppm) by weight unless otherwise stated. It must be emphasised that this data is "typical" and no guarantee is given that the material supplied will conform to these analyses. The compositions shown under alloy headings are generally weight percent. Exceptions are the glassy alloys and the rare earth magnets where the convention of using atomic ratio is followed.

Purity

Purities listed are quoted with respect to total metallic impurities. Typical analyses may give additional information about likely non-metallic impurities.

High Purity

For materials described in the catalog as High Purity, the actual analysis of metallic impurities will be supplied free of charge. For other items, an actual analysis can be supplied and a charge will be made for the analysis and for the sample used.

If you require an analysis please tell us whether you require analysis of metallic impurities only or metallic and gaseous. Where an analysis is required the shipment of your order may be delayed.

Supports

Some items from our range of foils need to be supported on one side of the foil to enable both you and us to handle these very delicate materials. Two types of support can be used, the choice being governed by the material. Wherever possible we use a temporary support, a permanent support only being used when the material is brittle (for example Chromium or Manganese).

The temporary support is Acrylic, approximately 0.2mm thick. This may be removed by dissolving in 2-Propanone (Acetone).

Our permanent support is Polyester, thickness 0.125mm, which is hot-press laminated to one face of the foil. It **cannot** be removed without destroying the foil.

Microfoil is mounted on a permanent 3.5µm polyester support. This support **cannot** be removed without destroying the Microfoil.

Microleaf is mounted on a specially treated support which allows separation of the metal film from the support. Full instructions on the method of removal are issued with each Microleaf supplied.

Light Tight (LT) & Not Light Tested (NLT)

Light tight (LT) foils are supplied without visible pinholes after examination without magnification. Foils 0.025mm or more in thickness are supplied LT unless otherwise stated.

Foils less than 0.025mm thick are normally supplied Not-Light Tested (NLT), and will normally contain pinholes but may occasionally be free from pinholes. Foils less than 0.025mm in thickness can often be supplied LT but may incur additional charges. Please specify if you require LT foils.

Vacuum tight

Vacuum tight foils show no detectable leakage when tested with a helium mass spectrometer with a sensitivity of 10^{-9} atm-cm³.s⁻¹.

Continuous Lengths

If you require material in continuous lengths please tell us when you place your order. Unless otherwise specified, we reserve the right to supply in more than one length.

Technical Data and Information

All information and technical data are given as a guide only. Although every effort has been made to ensure that the information is correct, no warranty is given as to its completeness or accuracy.

Tolerances

For details of our standard tolerances, please refer to the Product Description section. In many cases, closer tolerances are available but may be subject to an extra charge. If you have any special requirements it is important that you tell us at the time of ordering. This includes special tolerances, dimensional uniformity or any other special requirement which you may have (for example edge finish, packaging, labelling etc.). Please indicate precisely what is required and we shall do our best to meet your specification.

Order information

General Information

There are over 70,000 stock packs listed and if you cannot find what you need amongst them, please ask for special sizes, thicknesses, tolerances, dimensions or larger quantities. We are also able to offer many other pure metals, alloys, polymers and ceramics to special order.

Prices

All the prices listed are total (lot) prices for the sizes and quantities listed.

Prices shown are in US\$ and include free delivery by our standard 48 hour service except for those items marked as "special offer" or dangerous goods with transport restriction. Prices are subject to change without notice and orders will be invoiced at prices ruling on the date of despatch.

Transport Restriction

Some of the materials supplied by Goodfellow are subject to special transport restrictions. Additional shipment charges may apply which are dependent on destination. Please check the individual item on our website or contact us for details of the charges.

If you intend to have the material transported or sent onwards please ensure that you are aware of the relevant transport restrictions.

Delivery

Delivery by UPS or Federal Express is included in the prices, although alternative methods may be used depending on the materials ordered.

Split Shipment

All orders are accepted for one shipment on one date to one address. A charge will be made for split shipments made at the customer's request.

Special Analysis, Supports or Tolerances

An extra charge is made for non-standard supports, alternative tolerances and certificates of analysis. The analysis is free of charge for items marked "High Purity".

Cancellations

A charge for cancellation of orders may be made. The amount will depend on the circumstances.

Express Service

Please inform us if you need to have your goods shipped urgently. An administrative charge will be made for this service, details can be found on our website.

Shipment

We aim to have all items listed in this catalog in stock in the quantities and sizes listed. We can only undertake to ship an order on a particular date. The date of delivery at the customer's address is subject to the normal variations of the delivery service used.

Despatch

Orders will normally be shipped within 48 hours of receipt.

Non-delivery

If we have notified you of the shipment of goods and you have not received delivery within 5 days, please contact us.

Insurance

All consignments will be insured by us against the usual risks unless we are instructed in writing to the contrary.

Export Restrictions

A UK Government export licence may be required for some items to some destinations. If the item you require needs a special export licence or an end-use statement we will inform you at the time you order.

Materials Handling

Many of our materials are extremely delicate and it is essential every care is taken when handling them. Special attention is drawn to the extreme fragility of Microfoil, Microleaf and thinner and finer materials.

All materials are carefully packed to ensure safe transport of goods to your address. We do not accept responsibility for damage caused by mishandling once the outer transit packaging has been removed.

Terms of payment

Our normal terms of payment are net 30 days from date of invoice. Any alternative terms of payment are to be agreed with us in writing at the time of placing an order. Customers may be asked to pay cash with order or cash against pro-forma

Order information

invoice with their first order. In order to establish a credit account we will require details of your bankers, along with two trade references.

Credit account

We endeavour to keep our costs down and customers are requested to pay our invoices on time. We reserve the right to delay delivery if there are overdue invoices on the account. Accounts which remain unpaid beyond the due date may incur an interest charge at a rate of 2% per month.

Credit card payments

We also accept payment using the following credit and charge cards:

Mastercard, VISA and American Express.

VAT

VAT number for Goodfellow Cambridge: GB 212 8527 79

UK

VAT will be added to the invoice at the rate ruling at the date of invoice. Where a customer is exempt, VAT will be charged unless we receive a copy of the exemption form at the time the order is placed.

EU

Customers registered for VAT who provide their local registration number will not be charged UK VAT.

Customers who are exempt from VAT will not be charged UK VAT provided we are given a copy of their exemption form at the time the goods are ordered.

Customers not registered for VAT or who fail to give us their registration number will be charged UK VAT at the current rate.

Export

All exports to countries outside the EU are zero-rated for UK VAT unless the invoice is being paid from within the EU.

Return of goods

We will only accept return of goods provided we are contacted BEFORE the goods are returned. When we agree to the return we will issue a Goods Return Number and give instructions for the method of return of the goods. Goods will not be accepted for

return without a valid Goods Return Number. Due to the nature of some of our materials, it is imperative that you check any possible transport restrictions with your proposed freight company.

Claims

Great care is taken during manufacture and packing and all items are carefully inspected before shipment. Any claim in respect of short delivery, incorrect material or defective quality must be notified to us in writing within three days of delivery. Please retain ALL packaging for our inspection. Our liability for any such claim shall not exceed the cost of replacement of the goods free of charge, or crediting the customer with the invoice value thereof.

Goods ordered in error

We do not accept responsibility for customers' errors in ordering. The amount of credit for returned goods will be at our discretion. Where we accept returned goods a restocking charge will be made.

Conditions of sale

All orders, contracts and quotations are subject to our standard terms and conditions of sale.

Information and statements provided are indicative only and do not form part of any offer or contract.

Exclusions

We supply materials according to our specification. All conditions warranties and representations regarding the quality, fitness for purpose or state, size, shape, capacity or color of goods supplied whether expressed or implied by common law or statute or otherwise are hereby expressly excluded. We shall not be liable for any damage direct or consequential arising from the use of goods supplied by us however such damage is caused, nor for delay in delivery.

Law

Customers in the USA: Contracts between Goodfellow Corporation and the customer shall be deemed to be subject in all respects to the laws of the Commonwealth of Pennsylvania, or the United States of America.

Customers in France: Contracts between Goodfellow SARL and the customer shall be deemed to be subject in all respects to French law unless otherwise agreed in writing

Order information

Customers in Germany: Contracts between Goodfellow GmbH and the customer shall be deemed to be subject in all respects to German law unless otherwise agreed in writing

Customers in the UK and all other countries: Contracts between Goodfellow Cambridge Limited and the customer shall be deemed to be subject in all respects to English law unless otherwise agreed in writing.

Copies of our General Terms and Conditions are available upon request or can be downloaded from our websites at www.goodfellow.com or www.goodfellowusa.com.

Company Details

Company Structure

The Goodfellow Group consists of five companies:

Goodfellow Cambridge Limited

Goodfellow was established in the City of London in 1946. The Company now has subsidiary operations in France, Germany and North America with the Group's research laboratories, workshop facilities & central administration located in Huntingdon, England.

Goodfellow Corporation

Established at the same time as our associate company in Germany, Goodfellow Corporation was set up to service the requirements of our customers in the USA.

Goodfellow GmbH

Since 1989, this member of the Goodfellow group of companies has been serving the needs of our German speaking customers within Europe.

Goodfellow SARL

Goodfellow established an operation in France in 1993 to meet the needs of our French-speaking customers in Europe.

Goodfellow (Shanghai) Trading Co., Ltd

Goodfellow established a representative office in Shanghai in 2006, and in 2012 followed this with the creation of a fully-fledged trading company, servicing the research and specialist manufacturing requirements of the Chinese market.

COMPANY DETAILS

Goodfellow Cambridge Limited

Ermine Business Park
HUNTINGDON
PE29 6WR
England
Registered in England and Wales no. 01188162
VAT registration GB 212 8527 79

Goodfellow Corporation

125 Hookstown Grade Road
Coraopolis, PA 15108-9302
USA
A Pennsylvania corporation
EIN 23-2557381

Goodfellow SARL

229, rue Solférino
F-59000 Lille
France
Registered in Lille : RCS : B 381 486 836
Siren : 381486836
Numéro de TVA Intracommunitaire :
FR 06 381 486 836

Goodfellow GmbH

Am Alstertwiete 3
D-20099 Hamburg
Germany
Registered in Hamburg No. HRB 152991
Import VAT number DE112610478

Goodfellow (Shanghai) Trading Co., Ltd

Room 803, Centro Build, No. 568 Hengfeng Road
SHANGHAI
200070
The People's Republic of China

Conditions of Sale

1 GENERAL

1.1 In these Conditions:

1.1.1 the following expressions shall have the following meanings:-

- "Buyer" the individual firm company or other party from whom an order to supply Goods and/or Services is received by the Seller;
- "Conditions" the standard terms and conditions of sale of the Seller as set out herein and includes any additional terms and conditions of sale agreed in writing by the Seller;
- "Contract" a contract for the Supply of Goods and/or Services by the Seller to the Buyer;
- "Date of Delivery" the date on which delivery of the Goods or Services takes place pursuant to Condition 7;
- "Goods" the goods which the Seller is to supply (or, in relation to Condition 11, the goods in respect of which the Seller is to provide Services) under the Contract and includes any of them or any part of them and where the context so admits includes raw materials, processed materials and/or manufactured products whether processed or manufactured by the Seller or not;
- "Prepayment" a payment to be made by the Buyer pursuant to Condition 6.2 to be used at the Seller's discretion for the purchase of materials and/or towards the costs of labour and other costs relating to the supply of Goods;
- "Recommendations for Use" the recommendations (if any) relating to the storage, handling, application and/or use of the Goods contained in the published literature of the Seller (or, if relevant, a Supplier) or any recommendations made in Writing by an authorised representative of the Seller (or, if relevant, a Supplier);
- "Seller" Goodfellow Cambridge Limited and any subsidiary or holding company or associate (as such terms are defined in the Companies Act 1985 (as amended)) of the said company;
- "Services" the work or services or any of them to be provided by the Seller under the Contract;
- "Supplier" any person, firm or company who or which supplies materials to the Seller which make up the Goods which are to be supplied to the Buyer;

1.1.2 words importing the singular number shall include the plural and vice versa, words importing one gender shall include all genders, and words importing persons shall include bodies corporate, unincorporated associations and partnerships

- 1.2 If satisfactory references and information on the Buyer are not provided within seven days of a request therefore by the Seller, or if, following the provision of such information, the Seller is unable to obtain satisfactory trade indemnity or similar cover in respect of its dealings with the Buyer, the Seller may terminate the Contract and the rights and liabilities of the parties shall be the same as if the Contract had been cancelled in accordance with the provisions of Condition 10.2
- 1.3 The seller reserves the right to assign, sub-contract the Contract or any part thereof. The Buyer shall not be entitled to assign the benefit or burden of the Contract without the consent in writing of the Seller
- 1.4 In relation to all obligations of the Buyer under these Conditions, the time of performance is of the essence
- 1.5 The legal construction of these Conditions shall not be effected by their headings which are for convenience of reference only

2 ORDERS

- 2.1 Notwithstanding that the Seller may have given a detailed quotation or estimate either verbally or in writing no order shall be binding on the Seller unless and until it has been acknowledged in writing by the Seller or the Goods are delivered or the Services are provided by the Seller to the Buyer pursuant to the order
- 2.2 In order to avoid duplication of orders the Buyer shall be responsible for ensuring that any confirmation of an order previously placed is prominently marked as being a confirmation and not a new order. The Buyer acknowledges that any order or confirmation of order which is not so marked may be treated and accepted by the Seller as a new order to create a Contract in addition to any Contract arising out of the previously placed order
- 2.3 These Conditions are incorporated in the Contract and together with any matter set out in the Seller's quotation or acceptance/acknowledgement of order contain the entire obligations between the Seller and the Buyer. In the case of any inconsistency between any letter or quotation incorporating or referring to these Conditions and any order, letter or form of contract sent by the Buyer to the Seller, whatever may be their respective dates, the provisions of these Conditions shall prevail. In the event of the Seller entering into the Contract without the Seller having submitted a written quotation or other letter or document incorporating or referring to these Conditions but in circumstances where the Buyer has had prior notice of these Conditions then all Goods or Services supplied shall be subject to these Conditions
- 2.4 No variation of the Contract by the Buyer shall be binding upon the Seller unless made in Writing and signed on behalf of the Seller. In the event of such variation the Buyer shall indemnify and keep indemnified the Seller in full against all loss, which term shall include (but without prejudice to the generality thereof) loss of profit, costs (including the cost of labour and materials), damages, charges and expenses incurred (directly or indirectly) by the Seller as a result of such variation

- 2.5 Any representations (except fraudulent misrepresentations) or warranties made by or on behalf of the Seller prior to the Contract (whether verbally or in writing) are hereby expressly excluded and shall be of no effect

3 DESCRIPTION

- 3.1 Any figures, statements, descriptions, illustrations, photographs, drawings, weights or any other matters contained in the Seller's catalogues, pamphlets, price lists or advertising literature are not guaranteed to be accurate and are intended merely to represent a general picture of the Seller's products and shall not form part of the Contract nor be regarded as a warranty or representation relating to the Goods or Services
- 3.2 The Seller reserves the right to amend the specification of its products and services from time to time so that the descriptions thereof as set out in its catalogues, pamphlets, price lists or advertising literature may not be identical with those set out in the Seller's quotation and the Buyer is advised to check the specification set out in the Seller's quotation before placing an order

4 SPECIFICATIONS AND INTELLECTUAL PROPERTY

- 4.1 Where goods are supplied to the Buyer's own specification, or where standard goods of the Seller are altered in accordance with the Buyer's instructions the Buyer warrants and undertakes full responsibility for the suitability and fitness of the specification, pattern or design but also that such specification, pattern or design does not infringe any patent, trade mark, registered design, copyright or any other proprietary right of any third party and the Buyer shall indemnify and keep the Seller indemnified in full against any loss, damage or expense whatsoever (including costs) which the Seller may incur in or arising from the performance of the Contract by reason of any infringement of any such patent, trade mark, registered design, copyright or any other proprietary right
- 4.2 The Seller reserves the right to change the Buyer's specification as required to ensure that the Goods comply with any health, safety or other statutory requirement or provision and no such change by the Seller will constitute a breach of contract or impose upon the Seller any liability whatsoever
- 4.3 Unless otherwise agreed in writing, the Seller will be the sole owner of all inventions, formulations, tools, patterns, designs or other similar items and the copyright in all documents and drawings made or produced by it in preparing a quotation for the Buyer or in the course of work on any Contract with the Buyer

5 QUOTATIONS

- 5.1 The Seller's quotations are provisional in so far as they are subject to alteration by reference to any changes in the price of raw materials, any item to be acquired by the Seller from a third party, rates of wages, other costs of production and any other circumstances beyond the Seller's control taking place between the date of the quotation and the Buyer's placing of an order in respect thereof

6 PRICE

- 6.1 The Seller shall be entitled to adjust the Contract price of the Goods or Services whether before or after the making of the Contract in the event of any variation in the cost to the Seller of supplying the same or any part thereof caused by:-
- 6.1.1 any increase in the cost of materials required by the Seller for the completion of the Contract; or
- 6.1.2 any increase in wages or production and manufacturing costs or other overheads; or
- 6.1.3 any other reason whatsoever beyond the control of the Seller including (but without prejudice to the generality of the foregoing) fluctuations in exchange rates between monetary currencies the action of any government or any other authority or any labour problems
- 6.2 In the Seller's absolute discretion, a Prepayment in respect of the Contract may be required to be paid by the Buyer to the Seller on the terms set out in this Condition. The Prepayment shall be applied as follows:-
- 6.2.1 in the event that the Contract is performed in full by both parties the Prepayment shall be retained by the Seller in reduction of the total price payable by the Buyer under the Contract;
- 6.2.2 in the event that the Buyer is either in default of any of its obligations under the Contract or cancels or suspends the Contract in accordance with Condition 10 the Prepayment shall be set off by the Seller against its proper costs losses or damages arising in connection with the default and/or cancellation or suspension
- 6.3 Unless otherwise stated, the price set out in the Seller's quotation includes the cost of packaging, carriage, and (save as provided in Condition 6.4) insurance. In respect of supplies of Goods in the United States of America, Canada and Japan the price also includes import duties and sales taxes (if any). In respect of supplies of Goods in other countries the price does not include import duties or VAT or sales taxes which will be extra charges based on prevailing rates
- 6.4 Where the Buyer requests a particular means of delivery, the price set out in the Seller's quotation does not include insurance, which is to be arranged at the responsibility of the Buyer.

7 DELIVERY

- 7.1 Delivery of Goods shall be deemed to be effected by the Seller at the following times:-
- 7.1.1 where Goods are collected by or on behalf of the Buyer by its servants or agents, or where Goods are collected in

Conditions of Sale

- accordance with a means of delivery specifically requested by the Buyer, when the same are collected;
- 7.1.2 where delivery of the Goods is to be the responsibility of the Seller, when they arrive prior to unloading at the Buyer's premises;
- 7.1.3 where Goods are sold FOB or CIF, when they pass the ship's rail or are loaded onto the aircraft
- 7.2 Delivery of Services shall be deemed to be effected by the Seller at the time of completion by the Seller of the Services
- 7.3 Whilst the Seller will make every reasonable effort to complete the Contract by the date or dates therein specified for delivery of Goods or provision of Services such date or dates shall only constitute the times by which the Seller expects to effect such delivery and if no time is agreed delivery will be within a reasonable time but the performance of the Contract by the Seller shall not be the essence of the Contract, the Seller's failure to so deliver by the due date or dates shall not constitute a breach of Contract and the Seller shall not in any circumstances be responsible for any direct or consequential loss or damage of any kind whatsoever resulting therefrom. The Seller may wholly or partly suspend deliveries of Goods or provision of Services and the Buyer shall accept late delivery of such Goods or Services unless the Buyer has cancelled the Contract in accordance with the provisions of Condition 10.3

8 QUANTITIES INSTALMENTS AND STORAGE

- 8.1 Where Goods are delivered or Services are by instalment each instalment shall be deemed to be sold under a separate Contract and the party in default in respect of any instalment shall be liable accordingly, but no default in respect of any one instalment shall effect due performance of the Contract as regards other instalments
- 8.2 The Seller will endeavour to deliver the quantity of Goods ordered and every delivery shall be deemed to comply with the order. If there is a surplus or shortage of Goods which is no more than 10% of the quantity specified in the order the Buyer shall be deemed to have accepted the Goods and shall pay for the actual quantity delivered
- 8.3 If Goods or Services are to be delivered by instalments, the Seller shall be entitled to invoice each instalment as and when delivery is made and payment for all delivered instalments shall be due notwithstanding the non-delivery of other instalments or other default by the Seller. Failure by the Buyer to make payment by the due date for any one instalment for whatever reason shall entitle the Seller to suspend deliveries of Goods or provision of Services under the Contract but without prejudice to any other right the Seller may have under any of the other provisions of these Conditions
- 8.4 Notwithstanding that risk shall have passed to the Buyer pursuant to Condition 15 the Seller may in its absolute discretion arrange for storage of the Goods either at the request of the Buyer or as a result of the failure by the Buyer to take delivery of the Goods under Condition 7. The Seller may insure the goods whilst in storage and the Buyer shall indemnify and keep indemnified the Seller in full against all costs, losses, damages and expenses whatsoever arising in connection with the storage provided for hereunder and such costs, losses, damages and expenses will be added to and form part of the price of the Goods
- 8.5 Unless otherwise agreed between the Buyer and the Seller, the Seller shall be entitled in its absolute discretion and without giving prior notice to the Buyer at the expiration of 3 months to sell or otherwise dispose of Goods kept in storage as provided in Condition 8.4

9 TERMS OF PAYMENT

- 9.1 Unless otherwise agreed the price shall be due and payable at the Seller's offices 30 days after the date of the Seller's invoice
- 9.2 If the Buyer does not pay the whole or any part of the price on the required day then the Buyer shall pay to the Seller on request interest on the amount outstanding from the required day until the actual date of payment at the rate of 2% p.a. over the base rate of Barclays Bank plc from time to time in force which shall accrue on a daily basis
- 9.3 Condition 12 shall apply in the event of any alleged defect or failure in or of the Goods or Services and the Buyer shall not delay or refuse to make payment in any such event
- 9.4 The Buyer shall not be entitled to withhold payment of any amount due to the Seller by reason of any disputed claim by the Buyer in connection with the Contract nor shall the Buyer be entitled to set off against any amount payable under the Contract to the Seller any amount which is not then due and payable by the Seller or for which the Seller disputes liability
- 9.5 All payments payable to the Seller under the Contract shall become due immediately upon termination of the Contract despite any other provision.

10 SUSPENSION AND CANCELLATION

- 10.1 If the Buyer shall commit any breach of the Contract and fail to remedy the same within 7 days of receiving the Seller's request in writing so to do or any distress or execution is levied upon any goods or property of the Buyer or the Buyer makes any voluntary arrangement with its creditors or becomes subject to an administration order or (being an individual or firm) becomes bankrupt or (being an incorporated company) passes a resolution for winding up (otherwise than for the purpose of amalgamation or reconstruction), or a Court makes an order to that effect, or an encumbrancer takes possession, or an administrative receiver or receiver is appointed, or any of the property or assets of the Buyer, or the Buyer ceases, or threatens to cease, to carry on business or is unable to pay its debts within the meaning of section 123 Insolvency Act, 1986, or the Seller reasonably apprehends that any of the events mentioned above is about to occur in relation to the Buyer and notifies the Buyer accordingly, the Seller may:-
- 10.1.1 stop any Goods in transit and suspend any further deliveries;

and/or

- 10.1.2 suspend work on the Contract; and/or
- 10.1.3 determine the Contract forthwith and if the Goods or Services, or any part of them have been delivered but not paid for, the price shall become immediately due and payable notwithstanding any previous agreement to the contrary but without prejudice to the Seller's right to any unpaid price for Goods or Services delivered under the Contract and to damages for loss (both direct and consequential) suffered in consequence of such determination
- 10.2 If the Buyer requires cancellation of the Contract this will only be accepted at the sole discretion of the Seller and unless otherwise agreed in writing only upon condition that any costs, charges or expenses (both direct and consequential) incurred by the Seller up to the date of cancellation and the value of all loss or damage (both direct and consequential) incurred by the Seller by reason of such cancellation will be reimbursed by the Buyer to the Seller forthwith. Acceptance by the Seller of any cancellation by the Buyer will only be binding upon the Seller if it is made in writing
- 10.3 In the event of the Seller other than in any of the circumstances set out in Condition 10.1 being prevented or hindered from completing the Contract either wholly or in part in accordance with the terms thereof for any reason whatsoever beyond its reasonable control which, for the avoidance of doubt and without prejudice to the generality of the foregoing, shall include governmental action, war, riot, civil commotion, fire, flood, epidemic, labour disputes (including labour disputes involving the work force or any part thereof of the Seller or Supplier), restraints or delays affecting shipping or carriers, licensing, exporting or importing restrictions, currency restrictions and Acts of God then further performance of the Contract shall be suspended for the period during which the Seller is so prevented provided that in the event of the Contract being suspended for a continuous period of more than 3 months then either party may give the other notice in writing to terminate the Contract forthwith and in such circumstances the Buyer shall pay for all Goods or Services supplied to the date of such termination such payment to be made on or before the last day following the month during which termination was effected. The Seller shall be under no liability whatsoever to the Buyer for any direct or consequential loss or damage suffered by the Buyer as a result of the Seller's inability to perform its obligations under the Contract in these circumstances
- 10.4 The Seller's rights contained in Condition 17 (but not the Buyer's rights) shall continue beyond the discharge of the parties' primary obligations under the Contract consequent upon its termination
- 10.5 The termination of the Contract for whatever reason will be without prejudice to the rights and duties of either party accrued prior to termination

11 INSPECTION AND CLAIMS FOR DEFECTS

- 11.1 The Goods are of a highly specialised nature and must be treated with the utmost care. It is essential that the Buyer checks that they correspond in all respects with the Buyer's requirements. Any discrepancies should be notified to the Seller immediately. The Buyer undertakes to ensure that all Goods are unpacked and handled only by persons qualified to deal with such specialised products, to safeguard against injury to the Goods or to the Buyer's personnel
- 11.2 The Buyer shall inspect the Goods and carry out tests to ensure the Goods conform with the description of the Goods or Services in the Buyer's orders within 7 days of Delivery and whether or not the Buyer carries out such obligation to inspect and test no claims for non-delivery, shortages in quantity of units delivered, defective Goods or Services, non-conformity to description or partial loss or damage to Goods will be accepted by the Seller unless:-
- 11.2.1 they are notified in writing by the Buyer to the Seller within 10 days after the Date of Delivery (in the case of partial loss, damage, non-conforming or defective Goods or Services) or 14 days after the date of the invoice (in the case of non-delivery);
- 11.2.2 the Goods in respect of which a claim is made together with all the relevant packing are preserved intact as received for a period of 35 days from notification of any such claim and the Buyer permits the Seller or its servants or agents full and free right of access to inspect the Goods and investigate the claim; and
- 11.2.3 if the Buyer fails to give the appropriate notice as specified in Condition 11.2.1, the Buyer's claim will be deemed to have been waived and will be absolutely barred
- 11.3 It is in all cases the responsibility of the Buyer to ensure by testing or otherwise that the Goods are fit and suitable for the purposes for which the Buyer requires them in the conditions in which they will be used. The Buyer acknowledges that the Seller shall be under no liability of any description to the Buyer if the Goods prove to be unsuitable for whatever reason for application or use notwithstanding that the Seller may, at the request of the Buyer, have given in good faith technical or other advice in relation to the proposed application or use of the Goods and the Buyer shall indemnify and keep indemnified the Seller in full against any and all liability of any kind arising out of or connected with the application or use of the Goods
- 11.4 Section 3 Sale and Supply of Goods Act 1994 shall not apply
- 11.5 The Seller will not accept the return of Goods in any circumstances unless it has first issued a Goods return number and such number is quoted with the returned Goods

12 WARRANTY

- 12.1 In substitution for all and any other rights which the Buyer might or would have had but for these Conditions and subject to Condition 11,

Conditions of Sale

the Seller shall make good by replacement any failure in the Goods or Services which results from defects in the Seller's materials or workmanship and which appear not later than 2 months after the Date of Delivery and shall replace any Goods or Services which do not conform with the description in the Buyer's order

- 12.2 Notwithstanding the provisions of Condition 12.1, in the case of a claim falling within Condition 12.1, the Seller reserves the right at its sole discretion to credit the Buyer in full the price paid by the Buyer to the Seller
- 12.3 The Seller's liability under this Condition shall automatically cease if:
- 12.3.1 the Buyer has not paid for all Goods or Services supplied under any Contract by the due date or is otherwise in breach of this or any other Contract made with the Seller; or
- 12.3.2 the Seller or its servants or agents are denied full and free right of access to the allegedly defective Goods; or
- 12.3.3 the Buyer has not properly maintained the Goods or has not complied with any Recommendations for Use; or
- 12.3.4 the defect or failure is caused by a breach by the Buyer of its undertakings and warranties contained in Condition 17; or
- 12.3.5 the Buyer has failed to notify the Seller in writing of any defect or suspected defect within 14 days of the same coming to the knowledge of the Buyer
- 12.4 The warranty set out in Condition 12.1 shall be in lieu of any warranties conditions or undertakings whether express or implied by statute, common law or otherwise howsoever which warranties, conditions and undertakings are hereby expressly excluded, except that such exclusions will not apply to any implied condition that the Seller has or will have the right to sell the Goods when the property is to pass
- 12.5 Nothing in these Conditions excludes or limits the liability of the Seller for death or personal injury caused by the Seller's negligence or fraudulent misrepresentation
- 12.6 SUBJECT TO CONDITIONS 12.4 AND 12.5
- 12.6.1 the seller's total liability in contract, tort (including negligence or breach of statutory duty), misrepresentation or otherwise, arising in connection with the performance or contemplated performance of the contract shall be limited to the price paid for the goods or services under the contract; and
- 12.6.2 the seller shall not be liable to the buyer for any indirect or consequential loss or damage (whether for loss of profit, loss of business, depletion of goodwill or otherwise), costs, expenses or other claims for consequential compensation whatsoever (however caused) which arise out of or in connection with the contract

13 CONSUMER SALES

- 13.1 Where the Goods are sold under a consumer sale (as defined by the Sale of Goods Act 1979) the statutory rights of the Buyer are not affected by these conditions

14 TITLE TO GOODS

- 14.1 Full legal and beneficial ownership of the Goods shall be retained by the Seller notwithstanding that the risk in the same shall pass to the Buyer at the time of delivery until the Seller has received payment in full in respect of
- 14.1.1 The Goods; and
- 14.1.2 All other sums which become due and owing by the Buyer to the Seller on any account whatsoever
- 14.2 Until ownership of the Goods has passed to the Buyer the Buyer shall hold the Goods in a fiduciary capacity and as bailee of the Seller and shall at all times take proper care of the same and will not obliterate or obscure any identifying mark or their packaging and will keep the Goods separate from any other goods and in such manner that they may be clearly identified as belonging to the Seller and the Buyer hereby grants to the Seller the right to enter on the Buyer's premises at any time during the continuation of the Contract to check that the Buyer is complying with the obligation contained in this Condition. The Buyer will return the Goods to the Seller if it receives a request whether verbally or in Writing so to do prior to payment in full as aforesaid having been made and the Seller will then repay any part of the purchase price it has already received in respect of the Goods less a reasonable amount in respect of its costs and expenses in connection with the Contract
- 14.3 For the purposes of Condition 14.1, the expression "the Buyer" includes any subsidiary or holding company or associate of the Buyer (as such terms are defined in the Companies Act 1985 (as amended))
- 14.4 The Seller will have the right to maintain an action against the Buyer for the price of the Goods notwithstanding that property in the Goods has not been passed

15 RISK AND INSURANCE

- 15.1 The risk in the Goods shall pass to the Buyer at the time of delivery as provided for in Condition 7
- 15.2 Notwithstanding the reservation of title contained in Condition 14, the Buyer shall insure the Goods and/or any products made wholly or partly therefrom for the full amount of the price payable under the Contract with an insurance office of repute from the time of delivery of the Goods until the date title in the Goods passes to the Buyer pursuant to Condition 14.1

16 EXPORT TERMS

- 16.1 In these Conditions "Incoterms" means the international rules for the interpretation of trade terms of the International Chamber of Commerce

as in force at the date when the Contract is made. Unless the context otherwise requires, any term or expression which is defined in or given a particular meaning by the provisions of Incoterms has the same meaning in the Contract

- 16.2 Where the Goods are supplied for export from the United Kingdom then unless otherwise agreed in writing between the Buyer and the Seller
- 16.2.1 the provisions of Incoterms shall (subject to any special terms agreed in writing between the Buyer and the Seller) apply but if there is any conflict between the provisions of Incoterms and these Conditions, the latter shall prevail.
- 16.2.2 the Buyer shall be responsible for complying with any legislation or regulations governing the importation of the Goods into the country of destination and (save in respect of the United States of America, Canada and Japan) for the payment of any duties and taxes thereon unless payment for these is included in the Contract
- 16.2.3 the Buyer shall be deemed to have satisfied itself that such Goods comply with the safety regulations of any country or state in which the Goods are to be used outside the United Kingdom and the Buyer shall indemnify and keep indemnified the Seller in full for any loss or damage whatsoever which the Seller may incur if such Goods do not comply with such safety regulations
- 16.3 The Goods shall not be used in any country other than that for which the Seller was aware they were originally ordered without the Seller's consent in writing
- 16.4 The Buyer undertakes not to offer the Goods for resale in any country notified by the Seller at or before the time the Buyer's order is placed, or to sell the Goods to any person if the Buyer knows or has reason to believe that person intends to resell the Goods in any such country

17 BUYER'S WARRANTIES

- 17.1 The Buyer warrants to the Seller that:
- 17.1.1 the Buyer will install, operate or otherwise use or store the Goods strictly in accordance with the Recommendations for Use and with all relevant or applicable statutory or other regulations governing the installation, operation, use or storage of the Goods; and
- 17.1.2 any collection vehicle, container, ship or other means of transport provided by the Buyer or any agent of the Buyer will comply with all relevant legislation and regulations relating to health and safety requirements; and
- 17.1.3 the storage and transport facilities and all parts thereof and all equipment used in connection therewith is suitable for storage (both short term and long term) and transport of the Goods and complies with any statute, regulation, bye law or other rule having the force of law and relating to the storage of goods of the nature of the Goods; and
- 17.1.4 the Buyer will ensure that the Goods are stored in conditions appropriate to goods of that nature and will comply with any recommendations as to the storage of Goods notified to it by the Seller from time to time; and
- 17.2 The Buyer shall indemnify and keep indemnified the Seller in full against any claim, loss or damage (including, without limitation, damage to the reputation of the Seller) arising directly or indirectly from any breach of the warranty contained in Condition 17.1

18 SEVERANCE

- 18.1 If at any time any one or more of the provisions or part thereof of these Conditions becomes or is invalid, illegal or unenforceable in any respect under any law or is held by a court to be invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions hereof and the remainder of such provision shall not in any way be affected or impaired thereby

19 JURISDICTION

- 19.1 These Conditions and each and every Contract made pursuant to them shall be governed by and construed in all respects in accordance with the laws of England and the Seller and the Buyer hereby agree to submit to the non-exclusive jurisdiction of the English Courts

20 NOTICES

- 20.1 Any notice required or permitted to be given by either party to the other under these Conditions shall be in writing addressed to that other party at its registered office or principal place of business or such other address as may at the relevant time have been notified pursuant to this provision to the party giving notice
- 20.2 Any notice given pursuant to clause 20.1 shall be deemed to have been served:
- 20.2.1 if delivered by hand, on the first Business Day following delivery;
- 20.2.2 if sent by post, on the third Business Day after posting if the address of the recipient is in the country of despatch, otherwise on the seventh Business Day after posting;
- 20.2.3 if sent by facsimile transmission, on the first Business Day following successful transmission
- 20.3 In proving service it shall be sufficient proof in the case of a notice sent by post, that the envelope containing the same was properly stamped, addressed and placed in the post and, in the case of facsimile transmission, that it was properly addressed and successfully transmitted
- 20.4 In this Condition 20, "Business Day" shall mean any day other than Saturday, Sunday or any other day which is a public holiday in the place at which the notice is left or to which such notice is despatched

21 WAIVER

Conditions of Sale

21.1 No waiver by the Seller of any breach of any provision of the Contract by the Buyer shall be considered as a waiver of any subsequent breach

of the same or any other provision and the Seller shall not be prejudiced by any forbearance or indulgence granted by it to the Buyer

Silver

Ag

Silver was known to ancient civilizations.

Silver is a soft, malleable metal with a characteristic sheen. It has the highest thermal and electrical conductivities of all metals. It is generally found uncombined, or in the sulfide or arsenide ores from which it can be recovered as a cyanide complex which is subsequently reduced to the metal, in aqueous solution, by the use of zinc. The pure metal is stable to water and oxygen but is attacked in air by sulfur bearing compounds to form the characteristic black layer of silver sulfide. It is soluble in sulfuric and nitric acids.

Some silver salts are sensitive to light (e.g. AgI, AgCl and AgBr) and are of fundamental importance to photography. Other applications and industries in which silver is used include the manufacture of jewellery (both as the pure metal and as a constituent of various alloys), the electrical industry (e.g. in the manufacture of contacts) and for the silvering of glass.

Atomic Properties

Atomic number	47
Atomic radius - Goldschmidt	0.144 nm
Atomic weight	107.8682 amu
Crystal structure	Face centred cubic
Electronic structure	Kr 4d ¹⁰ 5s ¹
Photo-electric work function	4.7 eV
Thermal neutron absorption cross-section	63.8 Barns
Valences shown	1, 2

Natural isotope distribution

Mass No.	%
107	51.83
109	48.17

Ionization potential

No.	eV
1	7.58
2	21.5
3	34.8

Physical Properties

Boiling point	2212 C
Density @20C	10.5 g cm ⁻³
Melting point	961.9 C

Electrical Properties

Electrical resistivity @20C	1.63 μOhmcm
Temperature coefficient @0-100C	0.0041 K ⁻¹
Thermal emf against Pt (cold 0C - hot 100C)	+0.74 mV

Thermal Properties

Coefficient of thermal expansion @0-100C	19.1 x10 ⁻⁶ K ⁻¹
Latent heat of evaporation	2390 J g ⁻¹
Latent heat of fusion	103 J g ⁻¹
Specific heat @25C	237 J K ⁻¹ kg ⁻¹
Thermal conductivity @0-100C	429 W m ⁻¹ K ⁻¹

Mechanical Properties

Material condition	Soft	Hard	Polycrystalline
Bulk modulus			103.6 GPa
Hardness - Vickers	25	95	
Izod toughness	5 J m ⁻¹		
Poisson's ratio			0.367
Tensile modulus			82.7 GPa
Tensile strength	172	330	MPa



Microfoil

CONTRACT COATING of customers' own components or assemblies is available to special order.

AG004500

Thickness	0.1μm	Area density	110μg.cm ⁻²
Purity	99.95 + %	Support	Permanent Mylar 3.5μm

Web Code	Disk diam.	1 disk	2disks	5disks	10disks
502-728-592	10 mm	USD 381.00	USD 517.00	USD 926.00	USD 1472.00
133-148-448	25 mm	USD 563.00	USD 790.00	USD 1472.00	USD 2381.00

Typical Analysis : Starting Material : Al 1, Au 10, Bi <1, Ca 1, Cd <1, Cr <1, Cu 5, Fe 8, Mg <1, Mn <1, Na <1, Pb 1, Pd 3, Si 2, Sn <1.
 This item is normally made to order for delivery within 4-5 weeks.

AG004600

Thickness	0.25μm	Area density	262.3μg.cm ⁻²
Purity	99.95 + %	Support	Permanent Mylar 3.5μm

Web Code	Disk diam.	1 disk	2disks	5disks	10disks
499-815-288	10 mm	USD 422.00	USD 579.00	USD 1049.00	USD 1677.00
613-831-689	25 mm	USD 631.00	USD 892.00	USD 1677.00	USD 2722.00

Typical Analysis : Starting Material : Al 1, Au 10, Bi <1, Ca 1, Cd <1, Cr <1, Cu 5, Fe 8, Mg <1, Mn <1, Na <1, Pb 1, Pd 3, Si 2, Sn <1.
 This item is normally made to order for delivery within 4-5 weeks.

AG004700

Thickness	0.5μm	Area density	522.6μg.cm ⁻²
Purity	99.95 + %	Support	Permanent Mylar 3.5μm

Web Code	Disk diam.	1 disk	2disks	5disks	10disks
010-399-808	10 mm	USD 449.00	USD 620.00	USD 1131.00	USD 1813.00
497-143-426	25 mm	USD 676.00	USD 961.00	USD 1813.00	USD 2950.00

Typical Analysis : Starting Material : Al 1, Au 10, Bi <1, Ca 1, Cd <1, Cr <1, Cu 5, Fe 8, Mg <1, Mn <1, Na <1, Pb 1, Pd 3, Si 2, Sn <1.
 This item is normally made to order for delivery within 4-5 weeks.

AG004850

Thickness	1.0μm	Area density	1098μg.cm ⁻²
Purity	99.95%	Support	Permanent Mylar 3.5μm

Web Code	Disk diam.	1 disk	2disks	5disks	10disks
071-947-970	10 mm	USD 517.00	USD 722.00	USD 1336.00	USD 2154.00
186-307-277	25 mm	USD 790.00	USD 1131.00	USD 2154.00	USD 3518.00

Typical Analysis : Starting Material : Al 1, Au 10, Bi <1, Ca 1, Cd <1, Cr <1, Cu 5, Fe 8, Mg <1, Mn <1, Na <1, Pb 1, Pd 3, Si 2, Sn <1.
 This item is normally made to order for delivery within 4-5 weeks.

Silver

Ag



Foil

AG000080 Thickness **0.00075mm** Purity..... **99.97%**
 Support..... **Temporary Acrylic**

Web Code	Size	Quantity		
		1pc	2pcs	5pcs
258-839-381	25 x 25 mm	USD 502.00	USD 656.00	USD 974.00
016-910-070	50 x 50 mm	USD 843.00	USD 1138.00	

Typical Analysis : Al 4, Au 8, Bi 3, Ca 40, Cd 2, Cr 20, Cu 20, Fe 60, Mg 3, Mn 5, Na 10, Ni 5, Pb 40, Si 20, Sn 1.

AG000090 Thickness **0.001mm** Purity..... **99.97%**

Web Code	Size	Quantity		
		1pc	2pcs	5pcs
802-171-091	25 x 25 mm	USD 483.00	USD 628.00	USD 930.00
864-405-528	50 x 50 mm	USD 804.00	USD 1083.00	

Typical Analysis : Al 4, Au 8, Bi 3, Ca 40, Cd 2, Cr 20, Cu 20, Fe 60, Mg 3, Mn 5, Na 10, Ni 5, Pb 40, Si 20, Sn 1.

AG000100 Thickness **0.002mm** Purity..... **99.97%**

Web Code	Size	Quantity		
		1pc	2pcs	5pcs
600-993-073	25 x 25 mm	USD 464.00	USD 602.00	USD 889.00
503-665-161	50 x 50 mm	USD 768.00	USD 1031.00	
748-227-888	100 x 100 mm	USD 1853.00		

Typical Analysis : Al 4, Au 8, Bi 3, Ca 40, Cd 2, Cr 20, Cu 20, Fe 60, Mg 3, Mn 5, Na 10, Ni 5, Pb 40, Si 20, Sn 1.

AG000110 Thickness **0.0025mm** Purity..... **99.97%**

Web Code	Size	Quantity		
		1pc	2pcs	5pcs
063-757-647	25 x 25 mm	USD 446.00	USD 576.00	USD 847.00
819-778-884	50 x 50 mm	USD 730.00	USD 982.00	
456-816-661	100 x 100 mm	USD 1777.00		

Web Code	Diameter	Quantity		
		10 disks	20 disks	50 disks
810-663-268	4 mm	USD 511.00	USD 623.00	USD 895.00
332-905-799	6 mm	USD 591.00	USD 739.00	USD 1080.00
613-216-216	8 mm	USD 673.00	USD 855.00	USD 1268.00
652-025-998	10 mm	USD 755.00	USD 973.00	USD 1464.00
503-247-453	15 mm	USD 956.00	USD 1258.00	

Typical Analysis : Al 4, Au 8, Bi 3, Ca 40, Cd 2, Cr 20, Cu 20, Fe 60, Mg 3, Mn 5, Na 10, Ni 5, Pb 40, Si 20, Sn 1.

AG000215 Thickness **0.003mm** Purity..... **99.9%**

Web Code	Size	Quantity					
		1pc	2pcs	5pcs	10pcs	20pcs	
417-513-013	25 x 25 mm	USD 322.00	USD 380.00	USD 499.00	USD 641.00	USD 858.00	
207-078-044	50 x 50 mm	USD 449.00	USD 559.00	USD 783.00	USD 1043.00	USD 1425.00	
860-002-847	100 x 100 mm	USD 703.00	USD 918.00	USD 1350.00	USD 1947.00		
240-315-838	150 x 150 mm	USD 956.00	USD 1276.00	USD 2136.00			

Web Code	Length	Quantity
		1 Reel
550-973-987	0.2 m	USD 1173.00
871-743-228	0.5 m	USD 1684.00

Web Code	Diameter	Quantity		
		10 disks	20 disks	50 disks
987-773-450	4 mm	USD 453.00	USD 545.00	USD 758.00
471-677-462	6 mm	USD 491.00	USD 599.00	USD 844.00
959-685-681	8 mm	USD 530.00	USD 654.00	USD 931.00
960-711-041	10 mm	USD 568.00	USD 708.00	USD 1017.00
088-875-840	15 mm	USD 665.00	USD 844.00	USD 1232.00
109-484-843	25 mm	USD 857.00	USD 1117.00	USD 1664.00
685-612-208	50 mm	USD 1339.00	USD 1799.00	

Typical Analysis : Al 1, Au 20, Bi 1, Ca 3, Cd 20, Cr <1, Cu 500, Fe 7, Mg 1, Mn <1, Na 1, Ni 10, Pb 50, Si <1, Sn 3.

Metal – Silver

Silver

Ag



Foil

AG000120

Thickness **0.004mm**

Purity..... **99.97%**

Sizes LT

Web Code

147-837-113
 557-363-762
 987-685-476
 263-977-826

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 410.00	USD 526.00	USD 768.00	USD 1152.00
50 x 50 mm	USD 659.00	USD 910.00	USD 2052.00	
100 x 100 mm	USD 1634.00	USD 3119.00		
150 x 150 mm	USD 3474.00			

Disks

Web Code

639-281-543
 910-194-262
 774-286-045
 785-757-325
 219-666-000
 458-262-183

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 491.00	USD 595.00	USD 850.00
6 mm	USD 561.00	USD 696.00	USD 1012.00
8 mm	USD 633.00	USD 798.00	USD 1178.00
10 mm	USD 705.00	USD 901.00	USD 1381.00
15 mm	USD 880.00	USD 1151.00	USD 2406.00
25 mm	USD 1382.00	USD 2458.00	

Typical Analysis : Al 4, Au 8, Bi 3, Ca 40, Cd 2, Cr 20, Cu 20, Fe 60, Mg 3, Mn 5, Na 10, Ni 5, Pb 40, Si 20, Sn 1.

AG000130

Thickness **0.005mm**

Purity..... **99.97%**

Sizes LT

Web Code

119-458-752
 907-520-034
 557-261-958
 927-717-812

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 393.00	USD 501.00	USD 729.00	USD 1107.00
50 x 50 mm	USD 625.00	USD 874.00	USD 1962.00	
100 x 100 mm	USD 1562.00	USD 2975.00		
150 x 150 mm	USD 3313.00			

Disks

Web Code

930-460-689
 307-587-446
 448-433-402
 054-183-126
 772-889-895
 611-234-961

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 481.00	USD 582.00	USD 829.00
6 mm	USD 547.00	USD 675.00	USD 980.00
8 mm	USD 613.00	USD 771.00	USD 1134.00
10 mm	USD 680.00	USD 867.00	USD 1340.00
15 mm	USD 844.00	USD 1109.00	USD 2315.00
25 mm	USD 1331.00		

Typical Analysis : Al 4, Au 8, Bi 3, Ca 40, Cd 2, Cr 20, Cu 20, Fe 60, Mg 3, Mn 5, Na 10, Ni 5, Pb 40, Si 20, Sn 1.

AG000140

Thickness **0.006mm**

Purity..... **99.97%**

Sizes LT

Web Code

734-933-321
 059-853-009
 166-765-567
 294-929-058

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 376.00	USD 478.00	USD 692.00	USD 1063.00
50 x 50 mm	USD 591.00	USD 838.00	USD 1872.00	
100 x 100 mm	USD 1490.00	USD 2831.00		
150 x 150 mm	USD 3151.00			

Disks

Web Code

641-738-431
 217-307-116
 163-398-004
 424-750-911
 093-874-013
 734-260-793

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 472.00	USD 568.00	USD 807.00
6 mm	USD 533.00	USD 655.00	USD 948.00
8 mm	USD 594.00	USD 744.00	USD 1091.00
10 mm	USD 657.00	USD 833.00	USD 1298.00
15 mm	USD 809.00	USD 1072.00	USD 2223.00
25 mm	USD 1281.00	USD 2257.00	

Typical Analysis : Al 4, Au 8, Bi 3, Ca 40, Cd 2, Cr 20, Cu 20, Fe 60, Mg 3, Mn 5, Na 10, Ni 5, Pb 40, Si 20, Sn 1.

AG000150

Thickness **0.007mm**

Purity..... **99.97%**

Sizes LT

Web Code

326-746-972
 501-955-169
 413-606-998
 160-919-067

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 374.00	USD 475.00	USD 687.00	USD 1047.00
50 x 50 mm	USD 587.00	USD 825.00	USD 1841.00	
100 x 100 mm	USD 1465.00	USD 2781.00		
150 x 150 mm	USD 3094.00			

Disks

Web Code

097-423-503
 177-942-772
 242-841-457
 355-181-693
 397-706-464
 713-307-674

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 471.00	USD 567.00	USD 805.00
6 mm	USD 531.00	USD 653.00	USD 944.00
8 mm	USD 592.00	USD 740.00	USD 1085.00
10 mm	USD 654.00	USD 829.00	USD 1284.00
15 mm	USD 804.00	USD 1060.00	USD 2191.00
25 mm	USD 1263.00	USD 2222.00	

Typical Analysis : Al 4, Au 8, Bi 3, Ca 40, Cd 2, Cr 20, Cu 20, Fe 60, Mg 3, Mn 5, Na 10, Ni 5, Pb 40, Si 20, Sn 1.

Metal - Silver

Silver

Ag



Foil

AG000218 Thickness 0.008mm

Purity..... 99.95+%

Sizes LT
Web Code

034-965-855
 380-461-463
 541-573-509

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 285.00	USD 327.00	USD 414.00	USD 517.00	USD 672.00
50 x 50 mm	USD 380.00	USD 462.00	USD 627.00	USD 818.00	USD 1096.00
100 x 100 mm	USD 570.00	USD 730.00	USD 1051.00	USD 1418.00	

Coil

Web Code
 014-097-239
 168-664-894
 063-151-280

Length	Quantity	
	1 Reel	
0.2 m	USD 775.00	
0.5 m	USD 1087.00	
1 m	USD 1440.00	

Disks

Web Code
 425-127-340
 957-684-097
 357-240-566
 256-007-773
 724-697-271
 527-673-445
 238-369-906

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 405.00	USD 465.00	USD 604.00
6 mm	USD 434.00	USD 506.00	USD 668.00
8 mm	USD 463.00	USD 547.00	USD 733.00
10 mm	USD 492.00	USD 588.00	USD 798.00
15 mm	USD 564.00	USD 690.00	USD 959.00
25 mm	USD 708.00	USD 894.00	USD 1283.00
50 mm	USD 1070.00	USD 1407.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000160 Thickness 0.008mm

Purity..... 99.97%

NLT Sizes
Web Code

451-684-310
 411-587-065
 827-533-759
 835-332-156

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 360.00	USD 455.00	USD 656.00	USD 1020.00
50 x 50 mm	USD 559.00	USD 804.00	USD 1788.00	
100 x 100 mm	USD 1422.00	USD 2696.00		
150 x 150 mm	USD 2999.00			

Sizes LT

Web Code
 157-082-361

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 396.00	USD 500.00	USD 722.00	USD 1122.00

Disks

Web Code
 183-311-414
 913-930-057
 241-258-573
 157-324-021
 665-507-105
 188-389-748

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 463.00	USD 555.00	USD 787.00
6 mm	USD 519.00	USD 636.00	USD 917.00
8 mm	USD 576.00	USD 718.00	USD 1050.00
10 mm	USD 634.00	USD 801.00	USD 1260.00
15 mm	USD 775.00	USD 1038.00	USD 2138.00
25 mm	USD 1234.00	USD 2162.00	

Typical Analysis : Al 4, Au 8, Bi 3, Ca 40, Cd 2, Cr 20, Cu 20, Fe 60, Mg 3, Mn 5, Na 10, Ni 5, Pb 40, Si 20, Sn 1.

AG000170 Thickness 0.009mm

Purity..... 99.97%

NLT Sizes
Web Code

087-305-039
 964-335-883
 718-327-313
 996-173-163

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 347.00	USD 437.00	USD 627.00	USD 999.00
50 x 50 mm	USD 533.00	USD 787.00	USD 1746.00	
100 x 100 mm	USD 1389.00	USD 2629.00		
150 x 150 mm	USD 2923.00			

Sizes LT

Web Code
 966-878-374

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 382.00	USD 480.00	USD 690.00	USD 1099.00

Disks

Web Code
 961-738-827
 217-353-677
 169-209-416
 151-182-531
 897-814-295
 226-785-777

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 455.00	USD 545.00	USD 771.00
6 mm	USD 508.00	USD 621.00	USD 893.00
8 mm	USD 562.00	USD 697.00	USD 1017.00
10 mm	USD 616.00	USD 775.00	USD 1240.00
15 mm	USD 747.00	USD 1021.00	USD 2095.00
25 mm	USD 1210.00	USD 2115.00	

Typical Analysis : Al 4, Au 8, Bi 3, Ca 40, Cd 2, Cr 20, Cu 20, Fe 60, Mg 3, Mn 5, Na 10, Ni 5, Pb 40, Si 20, Sn 1.

AG000221 Thickness 0.01mm
 Purity..... 99.95+%

Coil width 1mm
 Temper..... As Drawn

Coil

Web Code
 056-967-589
 481-317-937
 629-028-744
 366-546-334
 661-062-343

Length	Quantity	
	1 Reel	
0.1 m	USD 302.00	
0.5 m	USD 382.00	
1 m	USD 443.00	
2 m	USD 528.00	
5 m	USD 699.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal – Silver

Silver

Ag



Foil

AG000220

Thickness **0.01mm**

Purity..... **99.95+%**

Sizes LT

Web Code

718-790-244
 124-735-358
 242-160-495
 607-362-153

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 283.00	USD 325.00	USD 410.00	USD 511.00	USD 663.00
50 x 50 mm	USD 376.00	USD 456.00	USD 618.00	USD 806.00	USD 1079.00
100 x 100 mm	USD 562.00	USD 719.00	USD 1034.00	USD 1394.00	
150 x 150 mm	USD 748.00	USD 983.00	USD 1451.00		

Coil

Web Code

967-224-995
 109-319-479
 516-107-772

Width **150mm**

Length	1 Reel
	0.2 m
0.5 m	USD 1257.00
1 m	USD 1680.00

Quantity

Disks

Web Code

640-800-759
 100-094-601
 511-833-017
 979-126-379
 390-792-002
 849-010-684
 126-325-541

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 404.00	USD 464.00	USD 601.00
6 mm	USD 432.00	USD 504.00	USD 664.00
8 mm	USD 461.00	USD 544.00	USD 728.00
10 mm	USD 489.00	USD 584.00	USD 791.00
15 mm	USD 560.00	USD 684.00	USD 950.00
25 mm	USD 701.00	USD 884.00	USD 1266.00
50 mm	USD 1056.00	USD 1386.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000241

Thickness **0.0125mm**

Coil width **9mm**

Purity..... **99.95+%**

Coil

Web Code

803-474-066
 037-798-485
 114-814-219
 561-073-463
 582-255-187

Width **9mm**

Length	1 Reel
	0.5 m
1 m	USD 336.00
2 m	USD 424.00
5 m	USD 600.00
10 m	USD 799.00

Quantity

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000240

Thickness **0.0125mm**

Purity..... **99.95+%**

NLT Sizes

Web Code

621-115-391
 497-760-149
 888-011-625

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 274.00	USD 316.00	USD 412.00	USD 540.00	USD 758.00
50 x 50 mm	USD 345.00	USD 416.00	USD 570.00	USD 764.00	USD 1075.00
100 x 100 mm	USD 487.00	USD 617.00	USD 888.00	USD 1213.00	USD 1710.00

Sizes LT

Web Code

550-963-319
 829-722-773

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 301.00	USD 347.00	USD 453.00	USD 594.00	USD 834.00
50 x 50 mm	USD 431.00	USD 520.00	USD 713.00	USD 955.00	USD 1344.00

Coil

Web Code

953-526-994
 373-796-506
 724-567-238

Width **100mm**

Length	1 Reel
	0.5 m
1 m	USD 1139.00
2 m	USD 1512.00

Quantity

Disks

Web Code

043-120-229
 390-032-416
 754-060-469
 257-552-170
 194-014-541
 251-815-792
 476-970-709

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 509.00	USD 677.00	USD 1013.00
6 mm	USD 530.00	USD 707.00	USD 1061.00
8 mm	USD 552.00	USD 738.00	USD 1110.00
10 mm	USD 574.00	USD 769.00	USD 1158.00
15 mm	USD 628.00	USD 845.00	USD 1279.00
25 mm	USD 735.00	USD 998.00	USD 1520.00
50 mm	USD 1006.00	USD 1381.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal – Silver

Silver

Ag



Foil

AG000180

Thickness **0.015mm**

Purity..... **99.97%**

NLT Sizes

Web Code

068-112-645
 893-386-078
 584-187-924

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
50 x 50 mm	USD 391.00	USD 623.00	USD 1334.00	
100 x 100 mm	USD 1059.00	USD 1970.00		
150 x 150 mm	USD 2182.00			

Sizes LT

Web Code

070-215-615
 750-948-709
 653-969-204

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 276.00	USD 336.00	USD 492.00	USD 793.00
50 x 50 mm	USD 430.00	USD 685.00	USD 1467.00	
100 x 100 mm	USD 1324.00	USD 2462.00		

Disks

Web Code

154-485-293
 310-650-942
 831-363-484
 920-432-445
 054-057-237
 757-154-216

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 416.00	USD 489.00	USD 681.00
6 mm	USD 448.00	USD 536.00	USD 757.00
8 mm	USD 482.00	USD 583.00	USD 865.00
10 mm	USD 515.00	USD 632.00	USD 1051.00
15 mm	USD 597.00	USD 853.00	USD 1676.00
25 mm	USD 979.00	USD 1654.00	

Typical Analysis : Al 4, Au 8, Bi 3, Ca 40, Cd 2, Cr 20, Cu 20, Fe 60, Mg 3, Mn 5, Na 10, Ni 5, Pb 40, Si 20, Sn 1.

AG000250

Thickness **0.015mm**

Purity..... **99.95+%**

NLT Sizes

Web Code

127-639-319
 510-731-413
 763-508-543
 726-794-836

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 281.00	USD 325.00	USD 427.00	USD 561.00	USD 788.00
50 x 50 mm	USD 358.00	USD 435.00	USD 600.00	USD 807.00	USD 1136.00
100 x 100 mm	USD 514.00	USD 655.00	USD 948.00	USD 1299.00	USD 1885.00
200 x 200 mm	USD 825.00	USD 1095.00	USD 1698.00		

Sizes LT

Web Code

839-442-997
 393-926-797

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 309.00	USD 358.00	USD 469.00	USD 617.00	USD 867.00
50 x 50 mm	USD 448.00	USD 544.00	USD 751.00	USD 1009.00	USD 1420.00

Coil

Web Code

682-260-264
 808-978-440
 326-575-424

Length	Quantity	
	1 Reel	
0.2 m	USD 878.00	
0.5 m	USD 1249.00	
1 m	USD 1759.00	

Disks

Web Code

465-583-563
 716-027-920
 780-559-044
 527-540-928
 949-719-321
 055-751-580
 890-724-771

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 513.00	USD 683.00	USD 1022.00
6 mm	USD 537.00	USD 716.00	USD 1075.00
8 mm	USD 560.00	USD 750.00	USD 1128.00
10 mm	USD 584.00	USD 783.00	USD 1181.00
15 mm	USD 643.00	USD 867.00	USD 1313.00
25 mm	USD 761.00	USD 1034.00	USD 1578.00
50 mm	USD 1057.00	USD 1454.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000190

Thickness **0.02mm**

Purity..... **99.97%**

NLT Sizes

Web Code

606-981-223
 590-086-971

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
100 x 100 mm	USD 1034.00	USD 1919.00		
150 x 150 mm	USD 2125.00			

Sizes LT

Web Code

320-183-743
 891-104-700
 378-717-924

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 274.00	USD 334.00	USD 484.00	USD 778.00
50 x 50 mm	USD 388.00	USD 610.00	USD 1302.00	
100 x 100 mm	USD 1137.00	USD 2111.00		

Disks

Web Code

309-355-508
 669-447-403
 680-932-646
 116-584-830
 573-110-306
 638-799-133

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 415.00	USD 487.00	USD 679.00
6 mm	USD 447.00	USD 534.00	USD 754.00
8 mm	USD 480.00	USD 581.00	USD 856.00
10 mm	USD 513.00	USD 628.00	USD 1036.00
15 mm	USD 593.00	USD 841.00	USD 1644.00
25 mm	USD 962.00	USD 1619.00	

Typical Analysis : Al 4, Au 8, Bi 3, Ca 40, Cd 2, Cr 20, Cu 20, Fe 60, Mg 3, Mn 5, Na 10, Ni 5, Pb 40, Si 20, Sn 1.

Metal – Silver

Silver

Ag



Foil

AG000260

Thickness **0.025mm**
 Temper **As Rolled**

Purity **99.95+%**

NLT Sizes

Web Code

759-561-708
 667-264-012
 969-969-862
 848-083-788
 648-362-876

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 186.00	USD 203.00	USD 243.00	USD 284.00	USD 347.00
50 x 50 mm	USD 218.00	USD 250.00	USD 316.00	USD 387.00	USD 494.00
100 x 100 mm	USD 284.00	USD 342.00	USD 463.00	USD 595.00	USD 787.00
150 x 150 mm	USD 349.00	USD 435.00	USD 609.00	USD 802.00	USD 1091.00
300 x 300 mm	USD 546.00	USD 713.00	USD 1060.00		

Sizes LT

Web Code

704-557-205
 339-807-339
 145-023-053
 457-107-936
 163-644-597

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 195.00	USD 213.00	USD 255.00	USD 298.00	USD 365.00
50 x 50 mm	USD 229.00	USD 262.00	USD 332.00	USD 407.00	USD 519.00
100 x 100 mm	USD 312.00	USD 377.00	USD 509.00	USD 654.00	USD 866.00
150 x 150 mm	USD 384.00	USD 479.00	USD 670.00	USD 882.00	USD 1200.00
300 x 300 mm	USD 655.00	USD 856.00	USD 1272.00		

Coil

Web Code

400-176-204
 022-029-833
 753-734-219

Length	Quantity
	1 Reel
0.5 m	USD 493.00
1 m	USD 615.00
2 m	USD 788.00

Disks

Web Code

216-782-512
 097-818-038
 227-250-649
 406-333-546
 791-689-668
 961-207-384
 150-924-344

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 323.00	USD 356.00	USD 448.00
6 mm	USD 333.00	USD 370.00	USD 470.00
8 mm	USD 343.00	USD 385.00	USD 493.00
10 mm	USD 353.00	USD 399.00	USD 515.00
15 mm	USD 378.00	USD 434.00	USD 571.00
25 mm	USD 428.00	USD 505.00	USD 683.00
50 mm	USD 553.00	USD 682.00	USD 965.00

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000266

Thickness **0.025mm**
 Temper **Annealed**

Purity **99.95+%**

NLT Sizes

Web Code

242-087-475
 998-816-452
 700-083-083

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 186.00	USD 203.00	USD 243.00	USD 284.00	USD 347.00
50 x 50 mm	USD 218.00	USD 250.00	USD 316.00	USD 387.00	
100 x 100 mm	USD 284.00	USD 342.00	USD 463.00		

Sizes LT

Web Code

458-563-901
 618-683-686
 980-062-949

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 195.00	USD 213.00	USD 255.00	USD 298.00	USD 365.00
50 x 50 mm	USD 229.00	USD 262.00	USD 332.00	USD 407.00	
100 x 100 mm	USD 312.00	USD 377.00	USD 509.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000265

Thickness **0.025mm**
 Temper **Annealed**

Purity **99.95+%**

NLT Sizes

Web Code

866-814-250
 692-771-915
 186-939-840
 766-047-448
 002-341-115

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 186.00	USD 203.00	USD 243.00	USD 284.00	USD 347.00
50 x 50 mm	USD 218.00	USD 250.00	USD 316.00	USD 387.00	USD 494.00
100 x 100 mm	USD 284.00	USD 342.00	USD 463.00	USD 595.00	USD 787.00
125 x 150 mm	USD 332.00	USD 411.00	USD 571.00	USD 748.00	
250 x 300 mm	USD 512.00	USD 665.00	USD 973.00		

Sizes LT

Web Code

806-139-304
 634-123-107
 457-949-193
 076-163-819
 028-472-035

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 195.00	USD 213.00	USD 255.00	USD 298.00	USD 365.00
50 x 50 mm	USD 229.00	USD 262.00	USD 332.00	USD 407.00	USD 519.00
100 x 100 mm	USD 312.00	USD 377.00	USD 509.00	USD 654.00	USD 866.00
125 x 150 mm	USD 382.00	USD 473.00	USD 657.00	USD 860.00	
250 x 300 mm	USD 614.00	USD 798.00	USD 1167.00		

Coil

Web Code

647-142-151
 124-841-556
 129-459-119

Length	Quantity
	1 Reel
0.5 m	USD 663.00
1 m	USD 856.00
2 m	USD 1190.00

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal - Silver

Silver

Ag



Foil

AG000270

Thickness **0.025mm**
 Temper **As Rolled**

Purity **99.99+%**

Size

Web Code

865-538-387
 192-296-874
 037-104-945
 291-440-223
 374-106-017

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 272.00	USD 326.00	USD 436.00	USD 557.00	USD 735.00
50 x 50 mm	USD 391.00	USD 495.00	USD 703.00	USD 935.00	
100 x 100 mm	USD 630.00	USD 832.00	USD 1481.00		
125 x 150 mm	USD 807.00	USD 1140.00			
250 x 300 mm	USD 2120.00				

Coil

Web Code
 764-997-358
 624-673-869

Length	Quantity	
	1 Reel	
0.2 m	USD 1510.00	
0.5 m	USD 3478.00	

Disks

Web Code
 529-501-916
 187-746-361
 468-297-959
 537-237-852
 154-727-394
 340-915-136
 614-395-314

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 376.00	USD 431.00	USD 566.00
6 mm	USD 412.00	USD 483.00	USD 649.00
8 mm	USD 449.00	USD 535.00	USD 732.00
10 mm	USD 486.00	USD 587.00	USD 815.00
15 mm	USD 577.00	USD 716.00	USD 1020.00
25 mm	USD 759.00	USD 975.00	USD 1433.00
50 mm	USD 1222.00	USD 1928.00	

Typical Analysis : Al 1, Au 10, Bi <1, Ca 1, Cd <1, Cr <1, Cu 5, Fe 8, Mg <1, Mn <1, Na <1, Pb 1, Pd 3, Si 2, Sn <1.

AG000268

Thickness **0.030mm**
 Temper **Annealed**

Purity **99.95+%**

NLT Sizes

Web Code
 898-368-574

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
260 x 300 mm	USD 554.00	USD 724.00		

Sizes LT

Web Code
 735-443-620
 161-690-586
 399-654-952

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
50 x 50 mm	USD 225.00	USD 258.00	USD 330.00	USD 407.00
100 x 100 mm	USD 296.00	USD 360.00	USD 491.00	
260 x 300 mm	USD 637.00	USD 833.00		

Coil

Web Code
 119-574-183
 321-021-434
 888-538-443

Length	Quantity	
	1 Reel	
0.2 m	USD 527.00	
0.5 m	USD 718.00	
1 m	USD 933.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000280

Thickness **0.035mm**
 Temper **As Rolled**

Purity **99.95+%**

Size

Web Code

799-413-360
 926-668-417
 833-551-725
 193-973-026

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 192.00	USD 211.00	USD 252.00	USD 304.00	USD 389.00
50 x 50 mm	USD 229.00	USD 263.00	USD 334.00	USD 420.00	USD 553.00
100 x 100 mm	USD 302.00	USD 367.00	USD 498.00	USD 652.00	
150 x 150 mm	USD 375.00	USD 470.00	USD 662.00	USD 884.00	

Coil

Web Code
 246-630-123
 828-770-354
 596-287-526

Length	Quantity	
	1 Reel	
0.5 m	USD 604.00	
1 m	USD 771.00	
2 m	USD 1008.00	

Disks

Web Code
 535-942-199
 992-766-659
 095-827-457
 978-431-139
 303-888-550
 986-065-377
 258-173-627

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 336.00	USD 389.00	USD 539.00
6 mm	USD 347.00	USD 405.00	USD 564.00
8 mm	USD 358.00	USD 420.00	USD 589.00
10 mm	USD 369.00	USD 436.00	USD 614.00
15 mm	USD 397.00	USD 476.00	USD 677.00
25 mm	USD 453.00	USD 555.00	USD 802.00
50 mm	USD 593.00	USD 754.00	USD 1118.00

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal – Silver

Silver

Ag



Foil

AG000281

Thickness **0.035mm** Purity..... **99.95 + %**
 Temper..... **As Rolled**

Size Web Code	Quantity	Quantity		
		1pc	2pcs	5pcs
516-981-227	300 x 300 mm	USD 595.00	USD 781.00	USD 1343.00

Coil Web Code	Width 300mm Length	Quantity	
		1 Reel	
517-462-502 636-312-125	0.5 m	USD 771.00	
	1 m	USD 1007.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000300

Thickness **0.05mm** Purity..... **99.95 + %**
 Temper..... **As Rolled**

Size Web Code	Quantity	Quantity				
		1pc	2pcs	5pcs	10pcs	20pcs
271-709-174	25 x 25 mm	USD 192.00	USD 210.00	USD 249.00	USD 297.00	USD 373.00
963-646-487	50 x 50 mm	USD 228.00	USD 262.00	USD 331.00	USD 414.00	USD 537.00
455-802-041	100 x 100 mm	USD 302.00	USD 366.00	USD 495.00	USD 646.00	USD 890.00
975-253-562	150 x 150 mm	USD 375.00	USD 470.00	USD 660.00	USD 948.00	
906-698-199	150 x 300 mm	USD 467.00	USD 599.00	USD 933.00		

Coil Web Code	Width 150mm Length	Quantity	
		1 Reel	
337-264-835 158-106-908	0.5 m	USD 606.00	
	1 m	USD 773.00	

Diameter Web Code	Quantity	Quantity		
		10 disks	20 disks	50 disks
420-378-938	4 mm	USD 304.00	USD 339.00	USD 430.00
547-374-000	6 mm	USD 313.00	USD 352.00	USD 451.00
421-758-076	8 mm	USD 323.00	USD 366.00	USD 472.00
719-750-655	10 mm	USD 332.00	USD 379.00	USD 493.00
968-834-530	15 mm	USD 356.00	USD 412.00	USD 546.00
104-315-377	25 mm	USD 402.00	USD 478.00	USD 651.00
039-423-456	50 mm	USD 520.00	USD 645.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000305

Thickness **0.05mm** Purity..... **99.95 + %**
 Temper..... **Annealed**

Size Web Code	Quantity	Quantity			
		1pc	2pcs	5pcs	10pcs
744-471-293	50 x 50 mm	USD 228.00	USD 262.00	USD 331.00	USD 414.00
712-441-871	100 x 100 mm	USD 302.00	USD 366.00	USD 495.00	USD 646.00
969-722-169	150 x 150 mm	USD 375.00	USD 470.00	USD 660.00	
670-387-234	300 x 300 mm	USD 596.00	USD 782.00		

Coil Web Code	Width 300mm Length	Quantity	
		1 Reel	
103-069-874 803-392-056	0.5 m	USD 772.00	
	1 m	USD 1225.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000320

Thickness **0.06mm** Purity..... **99.95 + %**
 Temper..... **Annealed**

Size Web Code	Quantity	Quantity			
		1pc	2pcs	5pcs	10pcs
218-545-059	50 x 50 mm	USD 235.00	USD 272.00	USD 347.00	USD 436.00
519-731-399	100 x 100 mm	USD 316.00	USD 385.00	USD 527.00	USD 691.00
418-677-580	150 x 150 mm	USD 396.00	USD 499.00	USD 707.00	
024-566-709	300 x 300 mm	USD 638.00	USD 894.00		

Coil Web Code	Width 300mm Length	Quantity	
		1 Reel	
733-429-862 158-400-310	0.5 m	USD 827.00	
	1 m	USD 1430.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000341

Thickness **0.075mm** Coil width **0.40mm**
 Purity..... **99.95 + %** Temper..... **Annealed**

Coil Web Code	Width 0.40mm Length	Quantity	
		1 Reel	
606-919-894 717-448-560 942-641-950 464-660-176 937-253-213	0.2 m	USD 201.00	
	0.5 m	USD 219.00	
	1 m	USD 241.00	
	2 m	USD 276.00	
	5 m	USD 370.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal – Silver

Silver

Ag



Foil

AG000340

Thickness **0.075mm**
 Temper **As Rolled**

Purity **99.95+%**

Size

Web Code

927-932-681
 991-578-549
 947-322-413
 415-311-720
 913-970-434

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 193.00	USD 211.00	USD 251.00	USD 300.00	USD 377.00
50 x 50 mm	USD 230.00	USD 264.00	USD 335.00	USD 420.00	USD 546.00
100 x 100 mm	USD 306.00	USD 371.00	USD 504.00	USD 658.00	USD 926.00
150 x 150 mm	USD 381.00	USD 478.00	USD 673.00	USD 988.00	
150 x 300 mm	USD 475.00	USD 610.00	USD 974.00		

Coil

Web Code

407-797-261
 974-660-913
 832-624-495

Width 150mm

Length	1 Reel
	0.5 m
1 m	USD 788.00
2 m	USD 1281.00

Disks

Web Code

246-310-066
 788-760-620
 595-085-912
 385-738-487
 217-305-754
 163-219-131
 402-399-292

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 305.00	USD 340.00	USD 431.00
6 mm	USD 314.00	USD 353.00	USD 453.00
8 mm	USD 324.00	USD 367.00	USD 475.00
10 mm	USD 333.00	USD 381.00	USD 496.00
15 mm	USD 357.00	USD 415.00	USD 550.00
25 mm	USD 405.00	USD 483.00	USD 658.00
50 mm	USD 526.00	USD 654.00	USD 932.00

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000349

Thickness **0.09mm**
 Purity **99.95+%**

Coil width **101.6mm**
 Temper **Annealed**

Coil

Web Code

256-415-145
 014-908-354
 939-737-420
 741-704-810

Width 101.6mm

Length	1 Reel
	0.1 m
0.2 m	USD 506.00
0.5 m	USD 676.00
1 m	USD 869.00

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000350

Thickness **0.1mm**
 Temper **As Rolled**

Purity **99.95+%**

Size

Web Code

299-906-616
 488-336-802
 042-107-826
 805-208-471

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 219.00	USD 245.00	USD 298.00	USD 363.00	USD 464.00
50 x 50 mm	USD 273.00	USD 321.00	USD 419.00	USD 535.00	USD 707.00
100 x 100 mm	USD 382.00	USD 474.00	USD 661.00	USD 877.00	
150 x 150 mm	USD 490.00	USD 628.00	USD 926.00		

Coil

Web Code

757-115-280
 639-409-237

Width 150mm

Length	1 Reel
	0.5 m
1 m	USD 1211.00

Disks

Web Code

934-617-004
 827-131-245
 391-411-438
 926-437-012
 804-628-648
 578-579-239
 322-404-728

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 324.00	USD 365.00	USD 464.00
6 mm	USD 338.00	USD 385.00	USD 494.00
8 mm	USD 351.00	USD 404.00	USD 525.00
10 mm	USD 365.00	USD 424.00	USD 556.00
15 mm	USD 399.00	USD 472.00	USD 633.00
25 mm	USD 468.00	USD 570.00	USD 787.00
50 mm	USD 641.00	USD 815.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal – Silver

Silver

Ag



Foil

AG000351

Thickness **0.1mm**
 Temper **Annealed**

Purity **99.95+%**

Size

Web Code

230-067-974
 224-325-535
 425-817-181
 491-107-027
 084-572-285

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 219.00	USD 245.00	USD 298.00	USD 363.00	USD 464.00
50 x 50 mm	USD 273.00	USD 321.00	USD 419.00	USD 535.00	USD 707.00
100 x 100 mm	USD 382.00	USD 474.00	USD 661.00	USD 877.00	
150 x 150 mm	USD 490.00	USD 628.00	USD 926.00		
300 x 300 mm	USD 815.00	USD 1366.00			

Coil

Web Code
 236-323-329

Width	Length	Quantity
300mm	1 Reel	
	0.5 m	USD 1211.00

Disks

Web Code
 628-063-058
 754-762-451
 294-346-083
 514-111-031
 968-364-391
 142-002-434
 630-070-732

Diameter	Quantity			
	10 disks	20 disks	50 disks	100 disks
4 mm	USD 324.00	USD 365.00	USD 464.00	USD 615.00
6 mm	USD 338.00	USD 385.00	USD 494.00	USD 659.00
8 mm	USD 351.00	USD 404.00	USD 525.00	USD 703.00
10 mm	USD 365.00	USD 424.00	USD 556.00	USD 747.00
15 mm	USD 399.00	USD 472.00	USD 633.00	USD 856.00
25 mm	USD 468.00	USD 570.00	USD 787.00	USD 1075.00
50 mm	USD 641.00	USD 815.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000403

Thickness **0.125mm**
 Purity **99.95+%**

Coil width **25mm**
 Temper **Annealed**

Coil

Web Code
 982-226-329
 113-103-211
 624-853-424
 074-551-025
 364-794-810

Width	Length	Quantity
25mm	1 Reel	
	0.2 m	USD 292.00
	0.5 m	USD 345.00
	1 m	USD 404.00
	2 m	USD 488.00
	5 m	USD 891.00

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000400

Thickness **0.125mm**
 Temper **As Rolled**

Purity **99.95+%**

Size

Web Code

591-427-080
 928-377-171
 047-145-015
 893-125-424
 640-678-456

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 186.00	USD 202.00	USD 236.00	USD 278.00	USD 345.00
50 x 50 mm	USD 218.00	USD 247.00	USD 306.00	USD 378.00	USD 486.00
100 x 100 mm	USD 281.00	USD 336.00	USD 448.00	USD 724.00	
150 x 150 mm	USD 345.00	USD 426.00	USD 779.00		
150 x 300 mm	USD 423.00	USD 649.00			

Coil

Web Code
 718-137-852
 799-075-741

Width	Length	Quantity
150mm	1 Reel	
	0.5 m	USD 613.00
	1 m	USD 1023.00

Disks

Web Code
 084-806-068
 600-759-304
 094-914-416
 864-303-159
 037-891-087
 736-378-266
 047-278-081

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 298.00	USD 330.00	USD 419.00
6 mm	USD 306.00	USD 341.00	USD 437.00
8 mm	USD 314.00	USD 353.00	USD 456.00
10 mm	USD 322.00	USD 364.00	USD 474.00
15 mm	USD 342.00	USD 393.00	USD 519.00
25 mm	USD 383.00	USD 450.00	USD 610.00
50 mm	USD 485.00	USD 596.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000401

Thickness **0.125mm**
 Temper **Annealed**

Purity **99.95+%**

Size

Web Code

168-161-815
 279-256-347
 774-052-616
 039-973-235

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 186.00	USD 202.00	USD 236.00	USD 278.00	USD 345.00
50 x 50 mm	USD 218.00	USD 247.00	USD 306.00	USD 378.00	USD 486.00
125 x 150 mm	USD 328.00	USD 402.00	USD 677.00		
150 x 250 mm	USD 400.00	USD 567.00			

Disks

Web Code
 735-481-648
 145-252-099
 479-116-531
 951-098-798
 401-444-418
 535-184-170
 427-018-577

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 298.00	USD 330.00	USD 419.00
6 mm	USD 306.00	USD 341.00	USD 437.00
8 mm	USD 314.00	USD 353.00	USD 456.00
10 mm	USD 322.00	USD 364.00	USD 474.00
15 mm	USD 342.00	USD 393.00	USD 519.00
25 mm	USD 383.00	USD 450.00	USD 610.00
50 mm	USD 485.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal - Silver

Silver

Ag



Foil

AG000360

Thickness **0.125mm**
 Temper **As Rolled**

High Purity **99.99+%**

Size

Web Code

300-587-929
 573-496-939
 687-123-521
 890-446-789

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 275.00	USD 313.00	USD 391.00	USD 484.00
50 x 50 mm	USD 359.00	USD 432.00	USD 580.00	USD 752.00
100 x 100 mm	USD 528.00	USD 671.00	USD 958.00	
150 x 150 mm	USD 697.00	USD 910.00		

Disks

Web Code

305-849-324
 231-174-532
 896-820-030
 102-510-098
 813-760-386
 720-037-877
 004-731-494

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 364.00	USD 412.00	USD 523.00
6 mm	USD 386.00	USD 442.00	USD 571.00
8 mm	USD 407.00	USD 473.00	USD 619.00
10 mm	USD 429.00	USD 503.00	USD 668.00
15 mm	USD 482.00	USD 579.00	USD 788.00
25 mm	USD 589.00	USD 731.00	
50 mm	USD 859.00		

Typical Analysis : Al 1, Au 10, Bi <1, Ca 1, Cd <1, Cr <1, Cu 5, Fe 8, Mg <1, Mn <1, Na <1, Pb 1, Pd 3, Si 2, Sn <1.

AG000402

Thickness **0.125mm**
 Temper **Annealed**

Purity **99.95+%**

Size

Web Code

657-938-640
 790-472-654

Size	Quantity		
	1pc	2pcs	5pcs
125 x 300 mm	USD 400.00	USD 567.00	USD 1189.00
250 x 300 mm	USD 564.00	USD 977.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000410

Thickness **0.15mm**
 Temper **As Rolled**

Purity **99.95+%**

Size

Web Code

909-755-160
 719-390-109
 923-773-457
 471-677-135

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 218.00	USD 247.00	USD 308.00	USD 381.00	USD 494.00
50 x 50 mm	USD 281.00	USD 336.00	USD 449.00	USD 581.00	USD 776.00
100 x 100 mm	USD 407.00	USD 515.00	USD 731.00	USD 1085.00	
150 x 150 mm	USD 533.00	USD 693.00	USD 1183.00		

Coil

Web Code

078-056-952

Width **150mm**

Length

0.5 m

Quantity

1 Reel
 USD 894.00

Disks

Web Code

959-640-924
 955-123-059
 390-384-075
 798-003-962
 750-492-079
 811-500-832
 437-601-236

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 318.00	USD 361.00	USD 464.00
6 mm	USD 334.00	USD 384.00	USD 499.00
8 mm	USD 350.00	USD 407.00	USD 536.00
10 mm	USD 366.00	USD 430.00	USD 572.00
15 mm	USD 406.00	USD 486.00	USD 661.00
25 mm	USD 486.00	USD 600.00	USD 841.00
50 mm	USD 688.00	USD 886.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000420

Thickness **0.20mm**
 Temper **As Rolled**

Purity **99.95+%**

Size

Web Code

744-458-138
 744-322-137
 855-200-557
 920-981-877

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 181.00	USD 204.00	USD 251.00	USD 307.00
50 x 50 mm	USD 230.00	USD 273.00	USD 361.00	USD 463.00
100 x 100 mm	USD 329.00	USD 412.00	USD 669.00	
150 x 150 mm	USD 427.00	USD 610.00		

Disks

Web Code

246-004-067
 309-986-610
 798-261-927
 277-679-753
 347-741-391
 684-035-737
 116-601-947

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 281.00	USD 319.00	USD 428.00
6 mm	USD 294.00	USD 337.00	USD 456.00
8 mm	USD 306.00	USD 355.00	USD 485.00
10 mm	USD 319.00	USD 373.00	USD 513.00
15 mm	USD 350.00	USD 417.00	USD 584.00
25 mm	USD 413.00	USD 506.00	
50 mm	USD 572.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal - Silver

Silver

Ag



Foil

AG000450

Thickness **0.25mm**
 Temper **As Rolled**

Purity **99.95+%**

Size

Web Code
 700-159-463
 519-933-221
 991-660-120
 957-514-896

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 187.00	USD 212.00	USD 264.00	USD 326.00
50 x 50 mm	USD 242.00	USD 290.00	USD 387.00	USD 499.00
100 x 100 mm	USD 352.00	USD 445.00	USD 801.00	
150 x 150 mm	USD 462.00	USD 728.00		

Disks

Web Code
 689-360-807
 170-111-784
 263-969-383
 996-173-727
 521-717-479
 214-685-739
 835-721-514

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 284.00	USD 324.00	USD 435.00
6 mm	USD 298.00	USD 343.00	USD 466.00
8 mm	USD 312.00	USD 363.00	USD 498.00
10 mm	USD 326.00	USD 383.00	USD 530.00
15 mm	USD 361.00	USD 433.00	USD 609.00
25 mm	USD 431.00	USD 533.00	
50 mm	USD 609.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000460

Thickness **0.25mm**
 Temper **As Rolled**

High Purity **99.99+%**

Size

Web Code
 465-189-035
 148-630-463
 578-810-212
 351-283-139

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	USD 312.00	USD 366.00	USD 476.00	USD 604.00	USD 795.00
50 x 50 mm	USD 435.00	USD 539.00	USD 749.00	USD 991.00	
100 x 100 mm	USD 680.00	USD 885.00	USD 1430.00		
150 x 150 mm	USD 925.00	USD 1298.00			

Disks

Web Code
 910-393-837
 799-230-551
 903-824-955
 978-117-145
 264-638-871
 079-858-634
 982-331-399

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 383.00	USD 439.00	USD 566.00
6 mm	USD 415.00	USD 483.00	USD 636.00
8 mm	USD 446.00	USD 527.00	USD 706.00
10 mm	USD 477.00	USD 572.00	USD 777.00
15 mm	USD 555.00	USD 682.00	USD 951.00
25 mm	USD 710.00	USD 902.00	USD 1301.00
50 mm	USD 1103.00	USD 1593.00	

Typical Analysis : Al 1, Au 10, Bi <1, Ca 1, Cd <1, Cr <1, Cu 5, Fe 8, Mg <1, Mn <1, Na <1, Pb 1, Pd 3, Si 2, Sn <1.

AG000451

Thickness **0.25mm**
 Temper **As Rolled**

Purity **99.95+%**
 Condition **Flattened**

Size

Web Code
 053-210-237
 974-303-394
 600-834-348

Size	Quantity
	1pc
250 x 300 mm	POA
300 x 500 mm	POA
300 x 1000 mm	POA

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000462

Thickness **0.30mm**
 Temper **As Rolled**

Purity **99.95+%**

Size

Web Code
 507-430-987
 914-087-326
 762-874-934

Size	Quantity		
	1pc	2pcs	5pcs
50 x 50 mm	USD 252.00	USD 305.00	USD 410.00
100 x 100 mm	USD 373.00	USD 475.00	
150 x 150 mm	USD 493.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000466

Thickness **0.5mm**
 Temper **As Rolled**

Purity **99.95+%**

Disks

Web Code
 548-214-823

Diameter	Quantity			
	1 disks	2 disks	5 disks	10 disks
19 mm	USD 193.00	USD 212.00	USD 255.00	USD 310.00

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal - Silver

Silver

Ag



Foil

AG000465

Thickness **0.5mm**
 Temper **As Rolled**

Purity **99.95+%**

Size

Web Code

791-424-639
 928-082-106
 010-264-694
 283-079-216

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	USD 174.00	USD 205.00	USD 274.00
50 x 50 mm	USD 231.00	USD 285.00	USD 502.00
100 x 100 mm	USD 401.00	USD 692.00	
150 x 150 mm	USD 755.00		

Disks

Web Code

384-904-190
 113-012-531
 126-567-300
 820-918-537
 614-822-695
 852-834-007

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 344.00	USD 448.00	USD 567.00
6 mm	USD 362.00	USD 474.00	USD 609.00
8 mm	USD 380.00	USD 500.00	USD 652.00
10 mm	USD 398.00	USD 527.00	USD 697.00
15 mm	USD 442.00	USD 589.00	USD 894.00
25 mm	USD 532.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000470

Thickness **0.5mm**
 Temper **As Rolled**

High Purity **99.99%**

Size

Web Code

531-309-788
 413-722-432
 715-308-269
 413-527-916

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	USD 210.00	USD 248.00	USD 336.00
50 x 50 mm	USD 271.00	USD 335.00	USD 623.00
100 x 100 mm	USD 488.00	USD 841.00	
150 x 150 mm	USD 914.00		

Disks

Web Code

690-989-562
 373-691-320
 711-424-322
 928-048-123
 006-017-828
 752-225-476

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 392.00	USD 468.00	USD 680.00
6 mm	USD 412.00	USD 496.00	USD 726.00
8 mm	USD 432.00	USD 525.00	USD 773.00
10 mm	USD 452.00	USD 555.00	USD 823.00
15 mm	USD 500.00	USD 624.00	USD 1081.00
25 mm	USD 620.00		

Typical Analysis : Al 1, Au 10, Bi <1, Ca 1, Cd <1, Cr <1, Cu 5, Fe 8, Mg <1, Mn <1, Na <1, Pb 1, Pd 3, Si 2, Sn <1.

AG000467

Thickness **0.5mm**
 Temper **As Rolled**

Purity **99.95+%**
 Condition **Flattened**

Size

Web Code

069-278-803
 888-683-904
 015-577-273

Size	Quantity		
	1pc	2pcs	5pcs
50 x 50 mm	USD 244.00	USD 304.00	USD 591.00
100 x 100 mm	USD 473.00	USD 835.00	
100 x 200 mm	USD 828.00		

Disks

Web Code

811-092-018
 583-840-202
 489-037-670
 556-277-134
 943-855-488
 120-638-443

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 348.00	USD 454.00	USD 577.00
6 mm	USD 368.00	USD 483.00	USD 624.00
8 mm	USD 389.00	USD 513.00	USD 673.00
10 mm	USD 409.00	USD 543.00	USD 724.00
15 mm	USD 459.00	USD 613.00	
25 mm	USD 587.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000468

Thickness **0.5mm**
 Temper **As Rolled**

Purity **99.95+%**
 Condition **Flattened**

Size

Web Code

566-671-454
 453-719-107
 445-665-999

Size	Quantity
	1pc
200 x 200 mm	POA
200 x 500 mm	POA
200 x 1000 mm	POA

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal - Silver

Silver

Ag



Foil

AG000475

Thickness **1.0mm**
 Temper **As Rolled**

Purity **99.95+%**

Size

Web Code
 522-321-168
 290-145-234
 268-155-416
 519-427-971

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 198.00	USD 238.00	USD 326.00	USD 539.00
50 x 50 mm	USD 277.00	USD 409.00	POA	
100 x 100 mm	USD 684.00	POA		
150 x 150 mm	POA			

Disks

Web Code
 928-494-171
 061-763-030
 720-380-118
 047-512-658
 939-080-656
 385-075-421

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 359.00	USD 469.00	USD 602.00
6 mm	USD 384.00	USD 506.00	USD 663.00
8 mm	USD 411.00	USD 544.00	USD 728.00
10 mm	USD 437.00	USD 584.00	USD 863.00
15 mm	USD 500.00	USD 724.00	USD 1300.00
25 mm	USD 752.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000480

Thickness **1.0mm**
 Temper **As Rolled**

High Purity **99.99+%**

Size

Web Code
 803-188-199
 398-513-657
 814-203-421
 775-425-448

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 235.00	USD 284.00	USD 410.00	USD 648.00
50 x 50 mm	USD 322.00	USD 501.00	USD 1049.00	
100 x 100 mm	USD 829.00	USD 1522.00		
150 x 150 mm	USD 1680.00			

Disks

Web Code
 928-182-660
 022-826-336
 853-288-937
 661-113-318
 639-162-857
 895-352-790

Diameter	Quantity		
	10 disks	20 disks	50 disks
4 mm	USD 408.00	USD 491.00	USD 718.00
6 mm	USD 437.00	USD 532.00	USD 785.00
8 mm	USD 465.00	USD 574.00	USD 881.00
10 mm	USD 495.00	USD 618.00	USD 1043.00
15 mm	USD 564.00	USD 804.00	USD 1569.00
25 mm	USD 886.00		

Typical Analysis : Al 1, Au 10, Bi <1, Ca 1, Cd <1, Cr <1, Cu 5, Fe 8, Mg <1, Mn <1, Na <1, Pb 1, Pd 3, Si 2, Sn <1.

AG000501

Thickness **2.0mm**
 Temper **As Rolled**

Purity **99.95+%**
 Surface Finish **Polished On One Side**

Size

Web Code
 749-854-965
 133-620-491

Size	Quantity	
	1pc	2pcs
25 x 25 mm	USD 256.00	USD 339.00
50 x 50 mm	USD 545.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000500

Thickness **2.0mm**
 Temper **As Rolled**

Purity **99.95+%**

Size

Web Code
 886-463-838
 807-986-754
 998-344-859
 793-112-360

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	USD 231.00	USD 285.00	USD 502.00	USD 893.00
50 x 50 mm	USD 401.00	USD 692.00	POA	
100 x 100 mm	POA			
150 x 150 mm	POA			

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000530

Thickness **3mm**
 Temper **As Rolled**

Purity **99.95+%**

Size

Web Code
 168-604-721
 075-588-921

Size	Quantity	
	1pc	2pcs
50 x 50 mm	USD 543.00	POA
100 x 100 mm	POA	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG000550

Thickness **6mm**
 Temper **As Rolled**

Purity **99.95+%**

Size

Web Code
 633-912-487
 239-060-997

Size	Quantity	
	1pc	2pcs
50 x 50 mm	USD 967.00	POA
100 x 100 mm	POA	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal – Silver

Silver

Ag



Sputtering Target

AG009300	Thickness 3.0mm	Purity 99.99%
Size	Quantity	
Web Code	Disk diam.	1disk
573-225-486	25 mm	POA
864-826-379	50 mm	POA
547-787-190	75 mm	POA

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.
 These targets are normally available for immediate shipment from stock. Other sizes are available to special order.

AG009500	Thickness 5.0mm	Purity 99.99%
Size	Quantity	
Web Code	Disk diam.	1disk
174-891-771	31 mm	POA

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.
 These targets are normally available for immediate shipment from stock. Other sizes are available to special order.

AG009600	Thickness 6.0mm	Purity 99.99%
Size	Quantity	
Web Code	Disk diam.	1disk
655-741-648	25 mm	POA
103-292-296	50 mm	POA
940-851-290	75 mm	POA

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.
 These targets are normally available for immediate shipment from stock. Other sizes are available to special order.



Mesh

AG008711	Nominal Aperture 0.196mm	Wire diameter 0.058mm
	Wires/inch 100x100	Open area 60%
	Type Plain Weave Mesh	
Size	Quantity	
Web Code	Size	1pc 2pcs 5pcs
677-732-139	25 x 25 mm	USD 289.00 USD 363.00 USD 502.00
964-471-909	50 x 50 mm	USD 406.00 USD 577.00
342-163-985	100 x 100 mm	USD 931.00

AG008710	Nominal Aperture 0.25mm	Wire diameter 0.06mm
	Wires/inch 82x82	Open area 65%
	Type Plain Weave Mesh	
Size	Quantity	
Web Code	Size	1pc 2pcs 5pcs
427-988-190	18 x 20 mm	USD 311.00 USD 393.00 USD 573.00
998-598-208	50 x 50 mm	USD 633.00 USD 1119.00
218-082-907	100 x 100 mm	USD 2015.00



Wire

AG005102	Diameter 0.0125mm	Purity 99.99%
	Temper Hard	
Length	Quantity	
Web Code	Length	1 Reel
481-295-095	1 m	USD 736.00
576-820-421	5 m	USD 1415.00

Typical Analysis : Al <2, Au <2, Bi <2, Cd <2, Cu 15, Fe <5, In <1, Mn <2, Ni <2, Pb <3, Sb <2, Sn <3, Zn <10.
 1m and 5m reels only.

AG005104	Diameter 0.015mm	Purity 99.99%
	Temper Hard	
Length	Quantity	
Web Code	Length	1 Reel
630-723-128	1 m	USD 610.00
812-683-428	5 m	USD 1133.00

Typical Analysis : Al <2, Au <2, Bi <2, Cd <2, Cu 15, Fe <5, In <1, Mn <2, Ni <2, Pb <3, Sb <2, Sn <3, Zn <10.
 1m and 5m reels only.

Metal – Silver

Silver

Ag



Wire

AG005106

Diameter..... **0.015mm**
 Temper..... **Annealed**

Purity..... **99.99%**

Length

Web Code
 842-179-781
 352-116-082

Quantity

Length 1 Reel
 1 m USD 610.00
 5 m USD 1133.00

Typical Analysis : Al <2, Au <2, Bi <2, Cd <2, Cu 15, Fe <5, In <1, Mn <2, Ni <2, Pb <3, Sb <2, Sn <3, Zn <10.
 1m and 5m reels only.

AG005105

Diameter..... **0.025mm**
 Temper..... **As Drawn**

Purity..... **99.99%**

Length

Web Code
 400-124-346
 894-058-488
 015-547-801
 943-483-788
 757-309-898

Quantity

Length 1 Reel
 1 m USD 294.00
 2 m USD 339.00
 5 m USD 427.00
 10 m USD 527.00
 20 m USD 668.00

Typical Analysis : Al 5, Au 5, Bi 2, Cd 3, Cu 35, Fe 10, Mn 2, Ni <3, Pb <3, Sb 5, Sn 2, Zn 10.

AG005107

Diameter..... **0.025mm**
 Temper..... **Annealed**

Purity..... **99.99%**

Length

Web Code
 768-706-486
 736-160-368
 399-621-444
 735-434-408
 386-940-005

Quantity

Length 1 Reel
 1 m USD 294.00
 2 m USD 339.00
 5 m USD 427.00
 10 m USD 527.00
 20 m USD 668.00

Typical Analysis : Al 5, Au 5, Bi 2, Cd 3, Cu 35, Fe 10, Mn 2, Ni <3, Pb <3, Sb 5, Sn 2, Zn 10.

AG005220

Diameter..... **0.050mm**
 Coating..... **Gold Plated Wire**

Purity..... **99.99%**

Length

Web Code
 514-124-632
 265-586-244
 198-278-164
 784-770-696

Quantity

Length 1 Reel
 0.5 m USD 317.00
 1 m USD 402.00
 2 m USD 527.00
 5 m USD 748.00

Typical Analysis : Al 5, Au 5, Bi 2, Cd 3, Cu 35, Fe 10, Mn 2, Ni <3, Pb <3, Sb 5, Sn 2, Zn 10.

AG005110

Diameter..... **0.05mm**
 Temper..... **Annealed**

Purity..... **99.99%**

Length

Web Code
 957-599-601
 699-955-698
 494-452-202
 806-537-211
 817-161-717

Quantity

Length 1 Reel
 10 m USD 166.00
 50 m USD 211.00
 100 m USD 249.00
 500 m USD 450.00
 1000 m USD 709.00

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.

AG005113

Diameter..... **0.075mm**
 Temper..... **As Drawn**

Purity..... **99.99%**

Length

Web Code
 479-762-946

Quantity

Length 1 Reel
 5 m USD 157.00

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.

AG005116

Diameter..... **0.1mm**
 Temper..... **As Drawn**

Purity..... **99.99%**

Length

Web Code
 481-480-508
 326-497-782
 122-665-353
 109-457-739
 046-724-257

Quantity

Length 1 Reel
 5 m USD 162.00
 10 m USD 183.00
 20 m USD 201.00
 100 m USD 284.00
 500 m USD 690.00

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.

Metal – Silver

Silver

Ag



Wire

AG005120	Diameter 0.125mm	Purity 99.99%
	Temper Annealed	
	Length	Quantity
	Web Code	Length 1 Reel
	151-579-198	5 m USD 160.00
	296-185-237	10 m USD 180.00
	023-152-475	20 m USD 198.00
	423-805-466	100 m USD 282.00
	975-678-029	500 m USD 687.00

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.

AG005124	Diameter 0.15mm	Purity 99.99%
	Temper As Drawn	
	Length	Quantity
	Web Code	Length 1 Reel
	186-212-663	5 m USD 165.00
	962-029-208	10 m USD 189.00
	276-528-993	20 m USD 210.00
	066-883-234	100 m USD 308.00
	644-713-387	250 m USD 521.00

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.

AG005127	Diameter 0.20mm	Purity 99.99%
	Temper As Drawn	
	Length	Quantity
	Web Code	Length 1 Reel
	638-407-209	5 m USD 161.00

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.

AG005140	Diameter 0.25mm	High Purity 99.997%
	Temper As Drawn	
	Length	Quantity
	Web Code	Length 1 Reel
	921-766-017	0.5 m USD 212.00
	220-756-578	1 m USD 230.00
	594-563-020	5 m USD 319.00
	926-153-406	10 m USD 400.00
	320-381-962	25 m USD 600.00

Typical Analysis : Ca <1, Cd <1, Cu <1, Fe 2, Mg <1, Na <1, Si 1.

AG005130	Diameter 0.25mm	Purity 99.99%
	Temper Annealed	
	Length	Quantity
	Web Code	Length 1 Reel
	267-930-189	5 m USD 161.00
	693-428-466	10 m USD 192.00
	769-178-752	20 m USD 223.00
	147-346-943	50 m USD 301.00
	408-095-179	100 m USD 485.00

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.

AG005145	Diameter 0.35mm	Purity 99.99%
	Temper Annealed	
	Length	Quantity
	Web Code	Length 1 Reel
	683-764-154	5 m USD 183.00
	824-966-838	10 m USD 223.00
	806-343-485	20 m USD 267.00
	699-562-183	50 m USD 489.00

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.

AG005150	Diameter 0.5mm	Purity 99.99%
	Temper Annealed	
	Length	Quantity
	Web Code	Length 1 Reel
	968-137-820	1 m USD 178.00
	978-373-859	2 m USD 204.00
	017-233-069	5 m USD 255.00
	548-406-522	10 m USD 313.00
	651-924-636	20 m USD 419.00

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.

Metal – Silver

Silver

Ag



Wire

AG005155 Diameter **0.8mm** Purity **99.99%**
 Temper **As Drawn**

Length		Quantity	
Web Code	Length	1 Reel	
778-702-015	0.5 m	USD 181.00	
684-352-316	1 m	USD 212.00	
296-735-914	2 m	USD 252.00	
544-039-509	5 m	USD 331.00	
004-942-766	10 m	USD 476.00	

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.

AG005161 Diameter **1.0mm** Purity **99.99%**
 Temper **Hard**

Length		Quantity	
Web Code	Length	1 Reel	
162-949-904	0.2 m	USD 171.00	

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.

AG005160 Diameter **1.0mm** Purity **99.99%**
 Temper **Annealed**

Length		Quantity	
Web Code	Length	1 Reel	
660-397-904	0.2 m	USD 164.00	
638-652-448	0.5 m	USD 196.00	
831-560-817	1 m	USD 233.00	
945-108-740	5 m	USD 385.00	
138-597-256	10 m	USD 654.00	

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.

AG005170 Diameter **2.0mm** Purity **99.99%**
 Temper **Annealed**

Length		Quantity	
Web Code	Length	1 Reel	
067-692-009	0.1 m	USD 182.00	
093-089-768	0.2 m	USD 212.00	
182-612-668	0.5 m	USD 272.00	
106-632-196	1 m	USD 340.00	
280-150-840	2 m	USD 509.00	

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.



Insulated Wire

Insulating coatings of polyurethane, polyimide and Nylon are also available.

AG005816 Conductor diameter **0.025mm** Insulation thickness **0.005mm**
 Purity **99.99%** Insulation **Polyurethane**

Length		Quantity	
Web Code	Length	1 Reel	
700-181-291	2 m	USD 192.00	
362-058-607	5 m	USD 228.00	
006-658-610	10 m	USD 268.00	
982-650-667	20 m	USD 391.00	
580-856-464	50 m	USD 759.00	

Typical Analysis :

AG005815 Conductor diameter **0.025mm** Insulation thickness **0.005mm**
 Purity **99.99%** Insulation **Polyester**

Length		Quantity	
Web Code	Length	1 Reel	
245-395-644	2 m	USD 192.00	
674-453-878	5 m	USD 228.00	
306-736-610	10 m	USD 268.00	
342-083-886	20 m	USD 391.00	
760-486-230	50 m	USD 759.00	

Typical Analysis :

Metal – Silver

Silver

Ag



Insulated Wire

AG005820

Conductor diameter..... **0.04mm** Insulation thickness..... **0.007mm**
 Purity..... **99.99%** Insulation..... **Polyester**
 Condition..... **Butyral Bond Coating 0.005 mm Thick**

Length		Quantity	
Web Code	Length	1 Reel	
142-079-812	2 m	USD 281.00	
280-245-454	5 m	USD 423.00	
945-134-514	10 m	USD 719.00	
207-450-190	20 m	USD 1311.00	
103-866-156	50 m	USD 3086.00	

Typical Analysis :

AG005825

Conductor diameter..... **0.05mm** Insulation thickness..... **0.0075mm**
 Purity..... **99.99%** Insulation..... **Polyester**

Length		Quantity	
Web Code	Length	1 Reel	
060-784-274	2 m	USD 184.00	
598-026-663	5 m	USD 217.00	
753-335-176	10 m	USD 254.00	
166-893-478	20 m	USD 340.00	
861-682-780	50 m	USD 657.00	

Typical Analysis :

AG005810

Conductor diameter..... **0.075mm** Insulation thickness..... **0.010mm**
 Purity..... **99.99%** Insulation..... **PTFE (Polytetrafluoroethylene)**

Length		Quantity	
Web Code	Length	1 Reel	
096-329-213	1 m	USD 190.00	
041-150-010	2 m	USD 226.00	
143-761-023	5 m	USD 339.00	
970-127-738	10 m	USD 570.00	
265-963-128	20 m	USD 1015.00	

Typical Analysis :

AG005811

Conductor diameter..... **0.075mm** Insulation thickness..... **0.010mm**
 Purity..... **99.99%** Insulation..... **Nylon**

Length		Quantity	
Web Code	Length	1 Reel	
603-641-993	1 m	USD 190.00	
593-052-374	2 m	USD 226.00	
824-170-461	5 m	USD 339.00	
810-673-942	10 m	USD 570.00	
092-197-979	20 m	USD 1015.00	

Typical Analysis :

AG005842

Conductor diameter..... **0.125mm** Insulation thickness..... **0.0125mm**
 Purity..... **99.9%** Insulation..... **Polyimide**

Length		Quantity	
Web Code	Length	1 Reel	
254-922-938	5 m	USD 209.00	
488-343-115	10 m	USD 243.00	
213-079-249	20 m	USD 312.00	
432-201-915	50 m	USD 589.00	

Typical Analysis : Al 1, Au 20, Bi 1, Ca 3, Cd 20, Cr <1, Cu 500, Fe 7, Mg 1, Mn <1, Na 1, Ni 10, Pb 50, Si <1, Sn 3.

AG005840

Conductor diameter..... **0.125mm** Insulation thickness..... **0.0125mm**
 Purity..... **99.99%** Insulation..... **Polyester**

Length		Quantity	
Web Code	Length	1 Reel	
710-348-690	2 m	USD 184.00	
793-580-023	5 m	USD 217.00	
197-509-905	10 m	USD 254.00	
688-747-556	20 m	USD 349.00	
093-445-271	50 m	USD 681.00	

Typical Analysis :

AG005845

Conductor diameter..... **0.125mm** Insulation thickness..... **0.015mm**
 Purity..... **99.99%** Insulation..... **PTFE (Polytetrafluoroethylene)**

Length		Quantity	
Web Code	Length	1 Reel	
479-905-483	2 m	USD 214.00	
988-178-670	5 m	USD 265.00	
522-326-550	10 m	USD 338.00	
290-815-722	20 m	USD 548.00	
351-974-430	50 m	USD 1177.00	

Typical Analysis :

Metal – Silver

Silver

Ag



Insulated Wire

AG005856

Conductor diameter **0.25mm**
 Purity **99.99%**

Insulation thickness **0.005mm**
 Insulation **Polyurethane**

Length

Web Code
 553-638-552
 753-149-323
 983-848-222
 308-044-879
 773-846-490

Quantity

Length 1 Reel
 1 m USD 190.00
 2 m USD 216.00
 5 m USD 269.00
 10 m USD 361.00
 20 m USD 595.00

Typical Analysis :

AG005860

Conductor diameter **0.25mm**
 Purity **99.99%**

Insulation thickness **0.015mm**
 Insulation **Epoxy**

Length

Web Code
 187-116-931
 389-619-737
 702-472-680
 809-075-325
 134-422-286

Quantity

Length 1 Reel
 2 m USD 209.00
 5 m USD 254.00
 10 m USD 333.00
 20 m USD 522.00
 50 m USD 1090.00

Typical Analysis :

AG005850

Conductor diameter **0.25mm**
 Purity **99.99%**

Insulation thickness **0.023mm**
 Insulation **Polyester**

Length

Web Code
 996-805-637
 600-708-565
 088-566-581
 070-816-359
 852-048-630

Quantity

Length 1 Reel
 2 m USD 205.00
 5 m USD 247.00
 10 m USD 292.00
 20 m USD 422.00
 50 m USD 845.00

Typical Analysis :

AG005855

Conductor diameter **0.25mm**
 Purity **99.99%**

Insulation thickness **0.024mm**
 Insulation **PTFE (Polytetrafluoroethylene)**

Length

Web Code
 506-081-669
 260-204-931
 525-624-933
 703-115-960
 889-496-938

Quantity

Length 1 Reel
 2 m USD 216.00
 5 m USD 269.00
 10 m USD 361.00
 20 m USD 595.00
 50 m USD 1296.00

Typical Analysis :

AG005852

Conductor diameter **0.25mm**
 Purity **99.99%**

Insulation thickness **0.025mm**
 Insulation **Polyimide**

Length

Web Code
 916-479-170
 550-344-569
 864-301-686
 294-811-503
 038-573-289

Quantity

Length 1 Reel
 1 m USD 199.00
 2 m USD 225.00
 5 m USD 278.00
 10 m USD 374.00
 20 m USD 609.00

Typical Analysis :



Rod

AG007902

Diameter **1.0mm**
 Temper **As Drawn**

Purity **99.95 + %**

Size

Web Code
 564-072-711
 533-456-064
 000-493-514
 138-134-114

Quantity

Length	1pc	2pcs	5pcs	10pcs
100 mm	USD 195.00	USD 225.00	USD 296.00	USD 351.00
200 mm	USD 215.00	USD 254.00	USD 341.00	USD 414.00
500 mm	USD 255.00	USD 310.00		
1000 mm	USD 300.00	USD 373.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007905

Diameter **1.5mm**
 Temper **As Drawn**

Purity **99.95 + %**

Size

Web Code
 934-961-021
 870-136-052
 767-004-718
 875-594-533

Quantity

Length	1pc	2pcs	5pcs	10pcs
100 mm	USD 210.00	USD 246.00	USD 328.00	USD 397.00
200 mm	USD 236.00	USD 283.00	USD 386.00	USD 491.00
500 mm	USD 287.00	USD 356.00	USD 554.00	
1000 mm	USD 345.00	USD 450.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal – Silver

Silver

Ag



Rod

AG007910

Diameter **2.0mm**
 Temper **As Drawn**

Purity **99.95 + %**

Size

Web Code
 449-313-936
 164-243-000
 530-385-376
 298-163-981

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	USD 214.00	USD 261.00	USD 364.00	USD 497.00
200 mm	USD 250.00	USD 313.00	USD 446.00	USD 751.00
500 mm	USD 323.00	USD 415.00		
1000 mm	USD 405.00	USD 669.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007912

Diameter **3.0mm**
 Temper **As Drawn**

High Purity **99.997%**

Size

Web Code
 297-366-922
 439-079-918
 714-670-162
 860-432-478

Length	Quantity		
	1pc	2pcs	5pcs
100 mm	USD 279.00	USD 353.00	USD 570.00
200 mm	USD 343.00	USD 458.00	USD 973.00
500 mm	USD 529.00	USD 942.00	
1000 mm	USD 932.00		

Typical Analysis : Ca <1, Cd <1, Cu <1, Fe 2, Mg <1, Na <1, Si 1.

AG007915

Diameter **3.5mm**
 Temper **As Drawn**

Purity **99.95 + %**

Size

Web Code
 955-748-867
 658-418-463
 283-561-160
 348-761-097

Length	Quantity		
	1pc	2pcs	5pcs
100 mm	USD 246.00	USD 306.00	USD 436.00
200 mm	USD 296.00	USD 377.00	USD 664.00
500 mm	USD 395.00	USD 633.00	
1000 mm	USD 623.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007920

Diameter **5.0mm**
 Temper **As Drawn**

Purity **99.95 + %**

Size

Web Code
 270-496-864
 812-101-696
 512-703-190
 087-889-884

Length	Quantity		
	1pc	2pcs	5pcs
100 mm	USD 341.00	USD 440.00	USD 767.00
200 mm	USD 412.00	USD 609.00	USD 1285.00
500 mm	USD 685.00	USD 1230.00	
1000 mm	USD 1203.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007928

Diameter **6.0mm**
 Temper **As Drawn**

Purity **99.95 + %**

Size

Web Code
 442-757-320
 273-271-798
 073-145-994
 245-062-109

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
50 mm	USD 316.00	USD 405.00	USD 632.00	USD 1083.00
100 mm	USD 378.00	USD 501.00	USD 1014.00	
200 mm	USD 474.00	USD 807.00		
500 mm	USD 932.00			

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007936

Diameter **7.0mm**
 Temper **As Drawn**

Purity **99.95 + %**

Size

Web Code
 713-771-282
 409-464-071
 708-248-763
 939-777-802

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
50 mm	USD 332.00	USD 428.00	USD 718.00	POA
100 mm	USD 400.00	USD 570.00	POA	
200 mm	USD 543.00	POA		
500 mm	POA			

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007935

Diameter **7.0mm**
 Temper **As Drawn**

High Purity **99.99%**

Size

Web Code
 596-422-860
 959-505-818
 938-225-106
 278-144-620

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
50 mm	USD 355.00	USD 460.00	USD 855.00	USD 1528.00
100 mm	USD 432.00	USD 679.00	USD 1459.00	
200 mm	USD 652.00	USD 1163.00		
500 mm	USD 1378.00			

Typical Analysis : Au <5, Bi 3, Cd 3, Cu 70, Fe 5, Na <1, Pb <2, Sn <5.

Metal – Silver

Silver

Ag



Rod

AG007930

Diameter **7.0mm**
 Temper **As Drawn**

High Purity **99.999%**

Size

Web Code
 986-237-497
 279-676-075
 919-828-078

Length	Quantity	
	1pc	2pcs
50 mm	USD 438.00	USD 572.00
100 mm	USD 545.00	USD 895.00
200 mm	USD 867.00	

Typical Analysis : Fe 1, Mg <1, Na <1.

AG007938

Diameter **8.0mm**
 Temper **As Drawn**

Purity **99.95 + %**

Size

Web Code
 839-346-927
 573-335-736
 135-963-077
 665-205-046

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
50 mm	USD 356.00	USD 461.00	USD 860.00	USD 1539.00
100 mm	USD 433.00	USD 683.00	USD 1470.00	
200 mm	USD 656.00	USD 1172.00		
500 mm	USD 1388.00			

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007940

Diameter **10.0mm**
 Temper **As Drawn**

Purity **99.95 + %**

Size

Web Code
 816-328-862
 263-411-638
 010-688-470
 336-052-872

Length	Quantity		
	1pc	2pcs	5pcs
25 mm	USD 357.00	USD 461.00	USD 804.00
50 mm	USD 429.00	USD 635.00	
100 mm	USD 603.00	USD 1055.00	
200 mm	USD 1023.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007942

Diameter **12.7mm**
 Temper **As Drawn**

Purity **99.95 + %**

Size

Web Code
 720-010-889
 537-766-591
 144-316-547
 593-036-399

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
25 mm	USD 401.00	USD 545.00	USD 1103.00	POA
50 mm	USD 512.00	USD 874.00	POA	
100 mm	USD 842.00	POA		
200 mm	POA			

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007945

Diameter **16mm**
 Temper **As Drawn**

Purity **99.95 + %**

Size

Web Code
 784-855-295
 584-107-161
 461-061-205

Length	Quantity	
	1pc	2pcs
25 mm	USD 459.00	USD 744.00
50 mm	USD 712.00	USD 1273.00
100 mm	USD 1241.00	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007950

Diameter **20.0mm**
 Temper **As Drawn**

Purity **99.95 + %**

Size

Web Code
 825-852-001
 231-507-195
 938-394-397

Length	Quantity
	1pc
25 mm	POA
50 mm	POA
100 mm	POA

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007955

Diameter **25mm**
 Temper **As Drawn**

Purity **99.95 + %**

Size

Web Code
 162-008-416
 188-008-617
 925-118-395

Length	Quantity
	1pc
25 mm	POA
50 mm	POA
100 mm	POA

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007958

Diameter **35mm**
 Temper **As Drawn**

Purity **99.95 + %**

Size

Web Code
 327-107-558
 529-807-014
 719-776-077

Length	Quantity
	1pc
20 mm	POA
48 mm	POA
100 mm	POA

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal – Silver

Silver

Ag



Rod

AG007959 Diameter **40.0mm** Purity **99.95 + %**
 Temper **As Drawn**

Size		Quantity	
Web Code	Length	1pc	
748-466-839	12 mm	POA	
533-312-632	25 mm	POA	
199-378-302	50 mm	POA	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007960 Diameter **50.0mm** Purity **99.95 + %**
 Temper **As Drawn**

Size		Quantity	
Web Code	Length	1pc	
815-790-116	25 mm	POA	
973-774-743	50 mm	POA	
721-849-232	100 mm	POA	

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.



Bar

AG008012 Side Length **1.25mm** Side Length (of longer side) **1.25mm**
 Purity **99.95 + %**

Size		Quantity			
Web Code	Length	1pc	2pcs	5pcs	10pcs
841-462-051	50 mm	USD 218.00	USD 252.00	USD 330.00	USD 424.00
982-927-183	100 mm	USD 241.00	USD 285.00	USD 414.00	
464-611-469	200 mm	USD 275.00	USD 341.00		
505-663-160	500 mm	USD 373.00			

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.



Tube

AG007050 Outside Diameter **0.7mm** Wall Thickness **0.2mm**
 Inside Diameter **0.3mm** Purity **99.95 + %**
 Temper **As Drawn**

Size		Quantity		
Web Code	Length	1pc	2pcs	5pcs
449-580-445	100 mm	USD 311.00	USD 375.00	USD 588.00
275-425-388	200 mm	USD 367.00	USD 491.00	USD 970.00
884-620-974	500 mm	USD 559.00	USD 949.00	
706-995-286	1000 mm	USD 940.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007100 Outside Diameter **1.1mm** Wall Thickness **0.175mm**
 Inside Diameter **0.75mm** Purity **99.95 + %**
 Temper **As Drawn**

Size		Quantity				
Web Code	Length	1pc	2pcs	5pcs	10pcs	20pcs
189-874-294	100 mm	USD 304.00	USD 365.00	USD 548.00	USD 910.00	USD 1633.00
734-283-529	200 mm	USD 356.00	USD 459.00	USD 889.00	USD 1592.00	
785-449-749	500 mm	USD 519.00	USD 868.00	USD 1912.00		
181-221-165	1000 mm	USD 860.00	USD 1550.00			

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007130 Outside Diameter **1.64mm** Wall Thickness **0.275mm**
 Inside Diameter **1.09mm** Purity **99.95 + %**
 Temper **As Drawn**

Size		Quantity		
Web Code	Length	5pcs	10pcs	20pcs
946-630-194	16.5 mm	USD 364.00	USD 493.00	USD 782.00

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007150 Outside Diameter **1.75mm** Wall Thickness **0.1mm**
 Inside Diameter **1.55mm** Purity **99.95 + %**
 Temper **As Drawn**

Size		Quantity		
Web Code	Length	1pc	2pcs	5pcs
652-638-223	100 mm	USD 302.00	USD 362.00	USD 538.00
579-779-712	200 mm	USD 354.00	USD 451.00	USD 869.00
472-474-204	500 mm	USD 509.00	USD 848.00	
059-285-095	1000 mm	USD 840.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal – Silver

Silver

Ag



Tube

AG007200

Outside Diameter **2.0mm**
 Inside Diameter **1.6mm**
 Temper **As Drawn**

Wall Thickness **0.2mm**
 Purity **99.95+%**

Size

Web Code
 410-629-790
 328-712-584
 089-067-990
 133-490-660

Length	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
100 mm	USD 305.00	USD 364.00	USD 533.00	USD 875.00	USD 1559.00
200 mm	USD 355.00	USD 447.00	USD 853.00	USD 1516.00	
500 mm	USD 503.00	USD 831.00	USD 1814.00		
1000 mm	USD 823.00	USD 1472.00			

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007220

Outside Diameter **2.8mm**
 Inside Diameter **2.5mm**
 Temper **As Drawn**

Wall Thickness **0.15mm**
 Purity **99.95+%**

Size

Web Code
 686-333-217
 791-652-113
 956-513-541
 564-191-172

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	USD 291.00	USD 363.00	USD 514.00	USD 817.00
200 mm	USD 354.00	USD 452.00	USD 774.00	
500 mm	USD 479.00	USD 747.00		
1000 mm	USD 738.00	USD 1347.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007225

Outside Diameter **3.0mm**
 Inside Diameter **0.76mm**
 Temper **As Drawn**

Wall Thickness **1.12mm**
 Purity **99.95+%**

Size

Web Code
 997-371-398
 565-170-714
 827-560-193
 662-583-331

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	USD 313.00	USD 393.00	USD 562.00	USD 959.00
200 mm	USD 384.00	USD 494.00	USD 913.00	
500 mm	USD 525.00	USD 885.00		
1000 mm	USD 876.00			

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007230

Outside Diameter **3.5mm**
 Inside Diameter **3.04mm**
 Temper **As Drawn**

Wall Thickness **0.23mm**
 Purity **99.95+%**

Size

Web Code
 523-894-342
 486-795-874
 849-480-584
 185-065-949

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	USD 263.00	USD 323.00	USD 451.00	USD 609.00
200 mm	USD 314.00	USD 394.00	USD 564.00	
500 mm	USD 414.00	USD 536.00		
1000 mm	USD 527.00	USD 892.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007250

Outside Diameter **4.65mm**
 Inside Diameter **4.15mm**
 Temper **As Drawn**

Wall Thickness **0.25mm**
 Purity **99.95+%**

Size

Web Code
 379-491-705
 436-470-048
 558-762-369
 845-295-584

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	USD 276.00	USD 339.00	USD 476.00	USD 646.00
200 mm	USD 329.00	USD 415.00	USD 596.00	USD 996.00
500 mm	USD 436.00	USD 565.00	USD 1135.00	
1000 mm	USD 555.00	USD 915.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007251

Outside Diameter **4.65mm**
 Inside Diameter **4.23mm**
 Temper **As Drawn**

Wall Thickness **0.21mm**
 Purity **99.95+%**

Size

Web Code
 524-466-966
 051-732-974
 866-454-142
 755-813-106

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	USD 276.00	USD 339.00	USD 476.00	USD 646.00
200 mm	USD 329.00	USD 415.00	USD 596.00	USD 996.00
500 mm	USD 436.00	USD 565.00	USD 1135.00	
1000 mm	USD 555.00	USD 915.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007260

Outside Diameter **5.0mm**
 Inside Diameter **4.5mm**
 Temper **As Drawn**

Wall Thickness **0.25mm**
 Purity **99.95+%**

Size

Web Code
 133-245-314
 655-666-608
 958-328-831
 791-106-045

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	USD 275.00	USD 339.00	USD 475.00	USD 645.00
200 mm	USD 329.00	USD 415.00	USD 595.00	USD 994.00
500 mm	USD 435.00	USD 565.00	USD 1133.00	
1000 mm	USD 555.00	USD 914.00		

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal – Silver

Silver

Ag



Tube

AG007300	Outside Diameter..... 6.0mm	Wall Thickness..... 1.0mm
	Inside Diameter..... 4mm	Purity..... 99.95+%
	Temper..... As Drawn	
Size	Quantity	
Web Code	Length	1pc 2pcs 5pcs
888-251-357	100 mm	USD 347.00 USD 440.00 USD 688.00
031-414-701	200 mm	USD 413.00 USD 533.00 USD 1078.00
926-842-903	500 mm	USD 579.00 USD 997.00
855-367-044	1000 mm	USD 970.00

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007325	Outside Diameter..... 7.0mm	Wall Thickness..... 0.5mm
	Inside Diameter..... 6mm	Purity..... 99.95+%
	Temper..... As Drawn	
Size	Quantity	
Web Code	Length	1pc 2pcs 5pcs
347-980-345	100 mm	USD 347.00 USD 440.00 USD 688.00
511-661-995	200 mm	USD 413.00 USD 533.00 USD 1078.00
990-922-569	500 mm	USD 579.00 USD 997.00

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007335	Outside Diameter..... 8.0mm	Wall Thickness..... 1.5mm
	Inside Diameter..... 5.0mm	Purity..... 99.95+%
	Temper..... As Drawn	
Size	Quantity	
Web Code	Length	1pc 2pcs 5pcs
216-953-390	50 mm	USD 315.00 USD 408.00 USD 619.00
022-971-894	100 mm	USD 367.00 USD 532.00 USD 994.00
515-384-847	200 mm	USD 490.00 USD 832.00
678-677-678	500 mm	USD 939.00

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007400	Outside Diameter..... 8.0x5.0mm	Wall Thickness..... 1mm
	Inside Diameter..... 6x3mm	Purity..... 99.95+%
	Condition..... Rectangular Section	
Size	Quantity	
Web Code	Length	1pc 2pcs 5pcs
920-885-240	100 mm	USD 451.00 USD 591.00 USD 1178.00
110-651-826	200 mm	USD 564.00 USD 918.00
831-479-687	500 mm	USD 1070.00

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007350	Outside Diameter..... 10mm	Wall Thickness..... 1.0mm
	Inside Diameter..... 8mm	Purity..... 99.95+%
	Temper..... As Drawn	
Size	Quantity	
Web Code	Length	1pc 2pcs 5pcs
802-581-593	50 mm	USD 313.00 USD 405.00 USD 605.00
779-258-199	100 mm	USD 363.00 USD 520.00 USD 965.00
407-269-757	200 mm	USD 479.00 USD 808.00
908-723-329	500 mm	USD 910.00

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

AG007380	Outside Diameter..... 12.7mm	Wall Thickness..... 0.5mm
	Inside Diameter..... 11.7mm	Purity..... 99.95+%
	Temper..... As Drawn	
Size	Quantity	
Web Code	Length	1pc 2pcs 5pcs
706-318-948	50 mm	USD 302.00 USD 390.00 USD 547.00
281-292-715	100 mm	USD 349.00 USD 474.00 USD 849.00
398-829-765	200 mm	USD 432.00 USD 715.00
686-234-211	500 mm	USD 794.00

Typical Analysis : Cu 70, Fe 5, Na 1, Pb 1, Zn 5.

Metal – Silver

Silver

Ag



Powder

AG006030 Max. Particle size **2micron** Purity..... **99.97+%**



Web Code
 381-105-085
 638-127-416
 765-936-178
 742-020-503

Quantity		1 Pot
Weight		
10 g		USD 318.00
25 g		USD 494.00
50 g		USD 798.00
100 g		USD 1405.00

Typical Analysis : Cl <20, Cu 180, Fe <20, K <1, Na 30, Pb <20.

Shipping Restriction. Additional shipment charges apply which are dependent on destination. Please check the individual item on our website or contact us for further details.

AG006023 Max. Particle size **45micron** Purity..... **99.99%**
 Condition..... **Gas Atomized** Shape **Spherical**



Web Code
 191-970-079
 227-518-830
 659-708-162
 075-038-257

Quantity		1 Pot
Weight		
10 g		USD 226.00
20 g		USD 294.00
50 g		USD 512.00
100 g		USD 839.00

Typical Analysis : Cu <25, Fe <10, Ni <5, Pb <10, Cl <5, sulphate <10, water <4000.

May be suitable for additive manufacturing research and development purposes.

Shipping Restriction. Additional shipment charges apply which are dependent on destination. Please check the individual item on our website or contact us for further details.



Lump

AG006100 Max. Lump size **3mm** High Purity **99.999%**
 Condition..... **Shot**

Web Code
 948-528-732
 566-096-572
 762-074-405

Quantity		1 Pot
Weight		
10 g		USD 441.00
20 g		USD 657.00
50 g		USD 1346.00

Typical Analysis : Fe 1, Mg <1, Na <1.

AG006105 Max. Lump size **6mm** Purity..... **99.99%**
 Condition..... **Pellets**

Web Code
 564-774-698
 051-834-129
 630-752-366

Quantity		1 Pot
Weight		
20 g		USD 329.00
50 g		USD 458.00
100 g		USD 769.00

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.
 Nominally 3.5mm diameter x 6mm length pellets.

AG006110 Max. Lump size **10mm** Purity..... **99.99%**
 Condition..... **Shot**

Web Code
 414-045-084
 755-630-738
 453-845-096

Quantity		1 Pot
Weight		
20 g		USD 329.00
50 g		USD 458.00
100 g		USD 769.00

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.

AG006106 Max. Lump size **20mm** Purity..... **99.99%**
 Condition..... **Pellets**

Web Code
 583-118-626
 086-521-801

Quantity		1 Pot
Weight		
50 g		USD 458.00
100 g		USD 769.00

Typical Analysis : Au 5, Bi 1, Cu 20, Fe 2, Mg 1, Pb 10.
 Nominally 9mm diameter x 15mm length pellets.

Metal – Silver

Silver

Ag



Sphere

AG006840 Diameter **0.5mm** Tolerance $\pm 50\mu\text{m}$
 Grade **Precision Sphere**

Quantity	Quantity
Web Code	Spheres 1 Pot
349-438-788	20 pcs USD 184.00
487-204-836	50 pcs USD 260.00
684-418-457	100 pcs USD 372.00
546-178-899	200 pcs USD 576.00

Typical Analysis : Not applicable



Single Crystal

AG002113 Oriented **(100)** Diameter **12.7mm**
 Length **2mm** Purity **99.999%**
 Condition **Unpolished**

Quantity	Quantity
Web Code	1pc
780-150-678	USD POA

Typical Analysis : Not applicable

AG002118 Oriented **(100)** Diameter **12mm**
 Length **5mm** Purity **99.999%**

Quantity	Quantity
Web Code	1pc
457-297-930	USD POA

Typical Analysis : Not applicable

AG002111 Oriented **(100)** Thickness **2mm**
 Diameter **10mm** Purity **99.999%**
 Surface Finish **Polished On One Side To 1 Micron**

Quantity	Quantity
Web Code	1pc
614-209-918	USD POA

Typical Analysis : Not applicable

AG002110 Oriented **(100)** Thickness **2mm**
 Diameter **10mm** Purity **99.999%**
 Condition **Unpolished**

Quantity	Quantity
Web Code	1pc
359-711-391	USD POA

Typical Analysis : Not applicable

AG002119 Oriented **(100)** Diameter **12mm**
 Length **10mm** Purity **99.999%**

Quantity	Quantity
Web Code	1pc
054-033-497	USD POA

Typical Analysis : Not applicable

AG002114 Oriented **(100)** Thickness **3mm**
 Diameter **12.7mm** Purity **99.999%**
 Condition **Unpolished**

Quantity	Quantity
Web Code	1pc
038-997-731	USD POA

Typical Analysis : Not applicable
 Although this crystal is normally held in stock ready for immediate shipment it is an example of crystals which may be grown to order with a delivery forecast of 20-30 weeks.

AG002120 Oriented **(100)** Diameter **12mm**
 Length **25mm** Purity **99.999%**

Quantity	Quantity
Web Code	1pc
706-972-566	USD POA

Typical Analysis : Not applicable

Metal – Silver

Silver

Ag



Single Crystal

AG002121	Oriented (100) Length 50mm	Diameter 12mm Purity 99.999%
Web Code 731-481-481	Quantity	1pc USD POA
Typical Analysis : Not applicable		
AG002151	Oriented (110) Diameter 10mm Surface Finish Polished On One Side To 1 Micron	Thickness 2mm Purity 99.999%
Web Code 533-530-878	Quantity	1pc USD POA
Typical Analysis : Not applicable		
AG002150	Oriented (110) Diameter 10mm Condition Unpolished	Thickness 2mm Purity 99.999%
Web Code 824-162-695	Quantity	1pc USD POA
Typical Analysis : Not applicable		
AG002131	Oriented (111) Diameter 10mm Surface Finish Polished On One Side To 1 Micron	Thickness 2mm Purity 99.999%
Web Code 778-195-855	Quantity	1pc USD POA
Typical Analysis : Not applicable		
AG002130	Oriented (111) Diameter 10mm Condition Unpolished	Thickness 2mm Purity 99.999%
Web Code 846-980-729	Quantity	1pc USD POA
Typical Analysis : Not applicable		
AG002160	Oriented (111) Length 25mm	Diameter 10mm Purity 99.999%
Web Code 851-173-059	Quantity	1pc USD POA
Typical Analysis : Not applicable Although this crystal is normally held in stock ready for immediate shipment it is an example of crystals which may be grown to order with a delivery forecast of 20-30 weeks.		
AG002141	Oriented (220) Diameter 10mm Surface Finish Polished On One Side To 1 Micron	Thickness 2mm Purity 99.999%
Web Code 065-947-901	Quantity	1pc USD POA
Typical Analysis : Not applicable		
AG002140	Oriented (220) Diameter 10mm Condition Unpolished	Thickness 2mm Purity 99.999%
Web Code 403-933-579	Quantity	1pc USD POA
Typical Analysis : Not applicable		

Metal – Silver

INDEX

<p>B Bar, Silver 42</p> <p>F Foil, Silver 20</p> <p>I Insulated Wire, Silver 37</p> <p>L Lump, Silver 45</p> <p>M Mesh, Silver 34 Microfoil, Silver 19</p> <p>P Powder, Silver 45</p> <p>R Rod, Silver 39</p> <p>S Silver (Ag) 19 Single Crystal, Silver 46 Sphere, Silver 46 Sputtering Target, Silver 34</p> <p>T Tube, Silver 42</p> <p>W Wire .. Silver 34</p>	
---	--

INDEX — B-W