

# 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



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# Standard Price List for Titanium

## CONTENTS

<b>Introduction</b>	4
<b>Product Descriptions</b>	5
<b>Hazards Information</b>	10
<b>General Information</b>	11
<b>Order information</b>	12
<b>Company Details</b>	15
<b>Conditions of Sale</b>	16
<b>Metal</b>	20
<b>INDEX</b>	49

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## Introduction

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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 Catalogue 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 Catalogue at [www.goodfellow.com](http://www.goodfellow.com).

### Materials

#### ***Metals and Alloys***

Goodfellow supplies virtually all of the pure metals from Aluminium 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 Catalogue 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](http://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 Catalogue 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**

Ceramics: ANSI B18.6.7M-1985



**Chopped Fibre**

Fibres cut into short lengths called cut, staple or chopped fibre.

**Tolerances**

Fibre 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%



**Fibre**

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**

Fibre 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%

**Product Descriptions**



**Metallised 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:  $\pm 10\%$   
 Size (linear dimension): < 100mm  $\pm 1\text{mm}$   
 $\geq 100\text{mm}$   $+2\% / -1\%$



**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 fibres 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. conventional textile fabrics. Due to the open and porous nature of this material, all other dimensions are nominal.

**Tolerances**

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



**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**

Ceramics: ANSI B18.2.4.1M-1979  
 (R1995)



**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

**Product Descriptions**



**Rod**

A straight length of circular section material.

**Tolerances**

Diameter:	≤ 10mm	± 10%
	Polymer	+ 20%/-10%
	Ceramic	+ 20%/-10%
> 10mm	± 5%	
	Ceramic	+ 20%/-10%
	Polymer	+ 20%/-10%
Length:	< 100mm	± 1mm
	≥ 100mm	+ 5% / -1%



**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 vapourisation 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%
> 5mm	± 5%	
	Polymer	± 10%
	Ceramic	± 10%
Wall thickness:		± 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**

Ceramics:	see item
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## Product Descriptions

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### Wire

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

#### Tolerances

Wire diameter:  $\pm 10\%$   
Length:  $+ 5\% / -1\%$

## Hazards Information

### HAZARDS

All materials listed in this catalogue, 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 catalogue, 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 catalogue 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 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-cm<sup>3</sup>.s<sup>-1</sup>.

### 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.

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## Order information

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### 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 are subject to change without notice.

Prices shown include delivery except for those items marked as "special offer" or dangerous goods with transport restriction. They do not include value added tax, any import duties or local taxes.

### 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

#### 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

An administration charge of £10 will be made for any order received for which same day shipment within the UK is requested.

### Shipment

We aim to have all items listed in this catalogue in stock in the quantities and sizes listed. We can only undertake to despatch 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 despatched within 48 hours of receipt.

### Non delivery

If we have notified you of despatch of goods and you have not received delivery within 7 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 invoice with their first order. In order to establish a credit account we will require details of your bankers, along with two trade references.

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## Order information

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### 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, American Express, DELTA and Switch.

### VAT

VAT number: 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 colour 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

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

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## Order information

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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](http://www.goodfellow.com) or [www.goodfellowusa.com](http://www.goodfellowusa.com).

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## Company Details

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### 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  
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EIN 23-2557381

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Siren : 381486836  
Numéro de TVA Intracommunitaire :  
FR 06 381 486 836

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#### **Goodfellow (Shanghai) Trading Co., Ltd**

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# 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, of 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

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## Conditions of Sale

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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

## Titanium

### Ti

Titanium was discovered by Rev. William Gregor in 1791 in Creed, Cornwall, England and, independently, by M.H. Klaproth in 1795 in Berlin, Germany.

Titanium is a hard, lustrous, silvery metal which is obtained by magnesium or calcium reduction of the tetrachloride. It is a relatively abundant element, there being 5600 ppm in the earth's crust. It forms a protective oxide coating and, hence, resists corrosion, although powdered metal burns in air. Titanium tends to be inert at low temperatures but will combine with a variety of reagents at elevated temperatures.

Titanium and its alloys are characterised by their lightness, strength and corrosion resistance and are used widely in aerospace applications. In addition, these properties also make the material suitable for medical applications (e.g. replacement hip joints). Titanium dioxide, TiO<sub>2</sub> is used as a white pigment in paints and plastics as it provides great opacity. The same material is also used in the manufacture of heat resisting and durable glass, the TiO<sub>2</sub> replacing certain proportions of the soda. Titanium carbide is used to manufacture cemented carbides.

<b>Atomic Properties</b>		<b>Physical Properties</b>	
Atomic number	22	Boiling point	3287 C
Atomic radius - Goldschmidt	0.147 nm	Density @20C	4.5 g cm <sup>-3</sup>
Atomic weight	47.88 amu	Melting point	1660 C
Crystal structure	Hexagonal close packed	<b>Electrical Properties</b>	
Electronic structure	Ar 3d <sup>2</sup> 4s <sup>2</sup>	Electrical resistivity @20C	54 μOhmcm
Photo-electric work function	4.1 eV	Temperature coefficient @0-100C	0.0038 K <sup>-1</sup>
Thermal neutron absorption cross-section	6.1 Barns	Superconductivity critical temperature	0.40 K
Valences shown	2, 3, 4	<b>Thermal Properties</b>	
Natural isotope distribution		Mass No.	%
		46	8.0
		47	7.5
		48	73.7
		49	5.5
		50	5.3
Ionisation potential		No.	eV
		1	6.82
		2	13.6
		3	27.5
		4	43.3
		5	99.2
		6	119
		<b>Mechanical Properties</b>	
		Material condition	Annealed Polycrystalline
		Bulk modulus	108.4 GPa
		Hardness - Vickers	60
		Izod toughness	61 J m <sup>-1</sup>
		Poisson's ratio	0.361
		Tensile modulus	120.2 GPa
		Tensile strength	230-460 MPa
		Yield strength	140-250 MPa



## Microfoil

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

<b>TI004500</b>	Thinness.....	<b>0.1μm</b>	Area density.....	<b>42.8μg.cm<sup>-2</sup></b>
	Purity.....	<b>99.6+%</b>	Support.....	<b>Permanent Mylar 3.5μm</b>
<b>Quantity</b>				
<b>Web Code</b>	<b>Disc diam.</b>	<b>1 disc</b>	<b>2discs</b>	<b>5discs</b>
059-252-810	10 mm	EUR 272.00	EUR 370.00	EUR 662.00
825-798-434	25 mm	EUR 402.00	EUR 565.00	EUR 1052.00

Typical Analysis : Starting Material : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.  
 This item is normally made to order for delivery within 4-5 weeks.

<b>TI004600</b>	Thinness.....	<b>0.25μm</b>	Area density.....	<b>112.6μg.cm<sup>-2</sup></b>
	Purity.....	<b>99.6+%</b>	Support.....	<b>Permanent Mylar 3.5μm</b>
<b>Quantity</b>				
<b>Web Code</b>	<b>Disc diam.</b>	<b>1 disc</b>	<b>2discs</b>	<b>5discs</b>
525-512-225	10 mm	EUR 301.00	EUR 414.00	EUR 750.00
129-297-443	25 mm	EUR 451.00	EUR 638.00	EUR 1199.00

Typical Analysis : Starting Material : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.  
 This item is normally made to order for delivery within 4-5 weeks.

<b>TI004700</b>	Thinness.....	<b>0.5μm</b>	Area density.....	<b>225.4μg.cm<sup>-2</sup></b>
	Purity.....	<b>99.6+%</b>	Support.....	<b>Permanent Mylar 3.5μm</b>
<b>Quantity</b>				
<b>Web Code</b>	<b>Disc diam.</b>	<b>1 disc</b>	<b>2discs</b>	<b>5discs</b>
139-599-398	10 mm	EUR 321.00	EUR 443.00	EUR 809.00
239-166-185	25 mm	EUR 484.00	EUR 687.00	EUR 1296.00

Typical Analysis : Starting Material : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.  
 This item is normally made to order for delivery within 4-5 weeks.

<b>TI004850</b>	Thinness.....	<b>1.0μm</b>	Area density.....	<b>429μg.cm<sup>-2</sup></b>
	Purity.....	<b>99.6+%</b>	Support.....	<b>Permanent Mylar 3.5μm</b>
<b>Quantity</b>				
<b>Web Code</b>	<b>Disc diam.</b>	<b>1 disc</b>	<b>2discs</b>	<b>5discs</b>
060-822-869	10 mm	EUR 370.00	EUR 516.00	EUR 955.00
356-832-183	25 mm	EUR 565.00	EUR 809.00	EUR 1540.00

Typical Analysis : Starting Material : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.  
 This item is normally made to order for delivery within 4-5 weeks.

**Titanium**

**Ti**



**Foil**

**TI000205** Thickness ..... **0.001mm** High Purity ..... **99.99+%**  
 Temper ..... **As rolled**

**Sizes LT**

**Web Code**  
 912-066-045  
 086-830-273

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 741.00	EUR 1018.00	EUR 1584.00
50 x 50 mm	EUR 1375.00	EUR 1915.00	

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI000090** Thickness ..... **0.002mm** Purity ..... **99.6+%**

**Sizes LT**

**Web Code**  
 079-450-947  
 882-226-421

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 467.00	EUR 622.00	EUR 939.00
50 x 50 mm	EUR 820.00	EUR 1121.00	

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000206** Thickness ..... **0.002mm** High Purity ..... **99.99+%**  
 Temper ..... **As rolled**

**Sizes LT**

**Web Code**  
 045-468-855  
 645-780-331

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 674.00	EUR 923.00	EUR 1435.00
50 x 50 mm	EUR 1241.00	EUR 1726.00	

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI000100** Thickness ..... **0.0025mm** Purity ..... **99.6+%**

**Sizes LT**

**Web Code**  
 688-203-858  
 060-778-536

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 449.00	EUR 597.00	EUR 899.00
50 x 50 mm	EUR 784.00	EUR 1070.00	

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000110** Thickness ..... **0.003mm** Purity ..... **99.6+%**

**Sizes LT**

**Web Code**  
 536-162-812  
 825-766-602

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 432.00	EUR 573.00	EUR 860.00
50 x 50 mm	EUR 750.00	EUR 1021.00	

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000121** Thickness ..... **0.004mm** Purity ..... **99.6+%**

**NLT Sizes**

**Web Code**  
 104-119-736  
 292-868-505  
 224-731-655

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 398.00	EUR 525.00	EUR 784.00
50 x 50 mm	EUR 682.00	EUR 925.00	
100 x 100 mm	EUR 1549.00		

**Sizes LT**

**Web Code**  
 785-692-968  
 002-536-064

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 478.00	EUR 630.00	EUR 941.00
50 x 50 mm	EUR 1022.00	EUR 1388.00	

**Discs**

**Web Code**  
 132-291-866  
 536-487-144  
 060-894-747  
 611-840-001  
 480-006-974

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 410.00	EUR 509.00	EUR 740.00
6 mm	EUR 490.00	EUR 623.00	EUR 924.00
8 mm	EUR 571.00	EUR 739.00	EUR 1110.00
10 mm	EUR 652.00	EUR 855.00	EUR 1299.00
15 mm	EUR 852.00	EUR 1139.00	

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**Metal – Titanium**

**Titanium**

**Ti**



**Foil**

**TI000210**

Thickness ..... **0.005mm**

Purity ..... **99.6+%**

**NLT Sizes**

**Web Code**

166-536-961  
 220-683-347  
 450-972-306

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 305.00	EUR 377.00	EUR 522.00
50 x 50 mm	EUR 471.00	EUR 611.00	
100 x 100 mm	EUR 1062.00		

**Sizes LT**

**Web Code**

270-344-449

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 335.00	EUR 414.00	EUR 574.00

**Discs**

**Web Code**

408-527-282  
 065-900-770  
 237-599-389  
 699-918-029  
 489-758-450

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 363.00	EUR 441.00	EUR 591.00
6 mm	EUR 414.00	EUR 515.00	EUR 709.00
8 mm	EUR 466.00	EUR 589.00	EUR 830.00
10 mm	EUR 519.00	EUR 664.00	EUR 952.00
15 mm	EUR 646.00	EUR 846.00	

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000208**

Thickness ..... **0.005mm**

High Purity ..... **99.99+%**

Temper ..... **As rolled**

**NLT Sizes**

**Web Code**

205-276-680  
 055-111-473  
 426-443-033

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 496.00	EUR 687.00	EUR 1125.00
50 x 50 mm	EUR 812.00	EUR 1133.00	
100 x 100 mm	EUR 1443.00		

**Sizes LT**

**Web Code**

501-822-204  
 224-191-870

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 546.00	EUR 755.00	EUR 1237.00
50 x 50 mm	EUR 1015.00	EUR 1416.00	

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI000140**

Thickness ..... **0.006mm**

Purity ..... **99.6+%**

**NLT Sizes**

**Web Code**

148-886-945  
 129-741-932  
 517-667-132

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 363.00	EUR 475.00	
50 x 50 mm	EUR 611.00	EUR 826.00	
100 x 100 mm	EUR 1474.00		

**Sizes LT**

**Web Code**

410-260-256  
 769-784-123

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 400.00	EUR 523.00	
50 x 50 mm	EUR 764.00	EUR 1033.00	

**Discs**

**Web Code**

113-674-130  
 209-268-740  
 158-597-940  
 824-740-947  
 092-613-455

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 390.00	EUR 481.00	EUR 696.00
6 mm	EUR 461.00	EUR 582.00	EUR 858.00
8 mm	EUR 531.00	EUR 683.00	EUR 1021.00
10 mm	EUR 603.00	EUR 786.00	EUR 1188.00
15 mm	EUR 778.00	EUR 1034.00	

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000150**

Thickness ..... **0.007mm**

Purity ..... **99.6+%**

**NLT Sizes**

**Web Code**

855-392-130  
 185-053-464  
 393-808-679  
 115-593-372

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	EUR 361.00	EUR 472.00	EUR 701.00	EUR 999.00
50 x 50 mm	EUR 607.00	EUR 819.00	EUR 1818.00	
100 x 100 mm	EUR 1449.00	EUR 2792.00		
150 x 150 mm	EUR 3116.00			

**Sizes LT**

**Web Code**

769-480-263  
 397-971-951

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	EUR 397.00	EUR 519.00	EUR 771.00	EUR 1099.00
50 x 50 mm	EUR 668.00	EUR 901.00	EUR 2000.00	

**Discs**

**Web Code**

031-461-509  
 932-699-089  
 587-386-527  
 423-317-228  
 914-657-809  
 332-230-147

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 389.00	EUR 479.00	EUR 693.00
6 mm	EUR 459.00	EUR 579.00	EUR 853.00
8 mm	EUR 529.00	EUR 679.00	EUR 1015.00
10 mm	EUR 600.00	EUR 781.00	EUR 1180.00
15 mm	EUR 773.00	EUR 1027.00	EUR 2077.00
25 mm	EUR 1184.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**Metal – Titanium**

## Titanium

Ti



### Foil

**TI000211**

Thickness ..... **0.008mm**  
 Purity ..... **99.6+%**

Coil width ..... **104mm**

**Coil**

**Web Code**  
 021-584-331  
 659-926-525

**Width 104mm**

**Quantity**

**Length 1 Reel**  
 0.2 m EUR 722.00  
 0.3 m EUR 977.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000160**

Thickness ..... **0.008mm**

Purity ..... **99.6+%**

**NLT Sizes**

**Web Code**  
 410-264-638  
 855-629-725  
 566-804-320  
 406-154-449

**Size**

**Quantity**

Size	1pc	2pcs	5pcs	10pcs
25 x 25 mm	EUR 348.00	EUR 453.00	EUR 671.00	EUR 972.00
50 x 50 mm	EUR 581.00	EUR 782.00	EUR 1763.00	
100 x 100 mm	EUR 1404.00	EUR 2703.00		
150 x 150 mm	EUR 3016.00			

**Sizes LT**

**Web Code**  
 683-083-649  
 984-569-898

**Size**

**Quantity**

Size	1pc	2pcs	5pcs	10pcs
25 x 25 mm	EUR 383.00	EUR 499.00	EUR 739.00	EUR 1069.00
50 x 50 mm	EUR 639.00	EUR 861.00	EUR 1939.00	

**Discs**

**Web Code**  
 890-279-724  
 284-972-801  
 621-609-045  
 701-127-200  
 640-900-870  
 112-611-681

**Diameter**

**Quantity**

Diameter	10 discs	20 discs	50 discs
4 mm	EUR 381.00	EUR 469.00	EUR 677.00
6 mm	EUR 448.00	EUR 563.00	EUR 828.00
8 mm	EUR 514.00	EUR 658.00	EUR 982.00
10 mm	EUR 581.00	EUR 755.00	EUR 1138.00
15 mm	EUR 745.00	EUR 988.00	EUR 2021.00
25 mm	EUR 1153.00	EUR 2089.00	

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000170**

Thickness ..... **0.009mm**

Purity ..... **99.6+%**

**NLT Sizes**

**Web Code**  
 606-259-869  
 470-380-247  
 132-104-234  
 669-276-069

**Size**

**Quantity**

Size	1pc	2pcs	5pcs	10pcs
25 x 25 mm	EUR 336.00	EUR 437.00	EUR 645.00	EUR 952.00
50 x 50 mm	EUR 557.00	EUR 753.00	EUR 1723.00	
100 x 100 mm	EUR 1373.00	EUR 2639.00		
150 x 150 mm	EUR 2945.00			

**Sizes LT**

**Web Code**  
 921-913-726  
 730-624-021

**Size**

**Quantity**

Size	1pc	2pcs	5pcs	10pcs
25 x 25 mm	EUR 370.00	EUR 480.00	EUR 710.00	EUR 1047.00
50 x 50 mm	EUR 613.00	EUR 828.00	EUR 1895.00	

**Discs**

**Web Code**  
 808-704-520  
 088-064-735  
 008-097-487  
 012-176-180  
 522-019-326  
 252-415-547

**Diameter**

**Quantity**

Diameter	10 discs	20 discs	50 discs
4 mm	EUR 375.00	EUR 460.00	EUR 662.00
6 mm	EUR 438.00	EUR 549.00	EUR 806.00
8 mm	EUR 501.00	EUR 640.00	EUR 952.00
10 mm	EUR 565.00	EUR 731.00	EUR 1105.00
15 mm	EUR 721.00	EUR 953.00	EUR 1981.00
25 mm	EUR 1131.00	EUR 2044.00	

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000213**

Thickness ..... **0.010mm**

Purity ..... **99.6+%**

**NLT Sizes**

**Web Code**  
 828-848-647  
 518-088-674  
 985-450-125

**Size**

**Quantity**

Size	1pc	2pcs	5pcs	10pcs	20pcs
100 x 100 mm	EUR 377.00	EUR 480.00	EUR 690.00	EUR 938.00	
150 x 150 mm	EUR 494.00	EUR 646.00	EUR 953.00		
200 x 200 mm	EUR 611.00	EUR 812.00			

**Sizes LT**

**Web Code**  
 373-084-615  
 039-370-796  
 269-444-548

**Size**

**Quantity**

Size	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	EUR 201.00	EUR 231.00	EUR 297.00	EUR 381.00	EUR 518.00
50 x 50 mm	EUR 259.00	EUR 314.00	EUR 428.00	EUR 567.00	EUR 780.00
100 x 100 mm	EUR 414.00	EUR 528.00	EUR 759.00	EUR 1031.00	

**Coil**

**Web Code**  
 974-012-368  
 829-667-312  
 989-971-926  
 766-205-510

**Width 150mm**

**Quantity**

**Length 1 Reel**  
 0.2 m EUR 579.00  
 0.3 m EUR 670.00  
 0.5 m EUR 815.00  
 1 m EUR 1081.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

Metal – Titanium

## Titanium

Ti



### Foil

**TI000212**

Thickness ..... **0.01mm**  
 Temper ..... **As rolled**

High Purity ..... **99.99+%**

#### NLT Sizes

**Web Code**  
 098-397-513  
 493-860-886

Size	Quantity		
	1pc	2pcs	5pcs
50 x 50 mm	EUR 798.00	EUR 1100.00	
100 x 100 mm	EUR 1491.00		

#### Sizes LT

**Web Code**  
 174-909-779  
 258-429-339  
 923-125-799

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 452.00	EUR 611.00	EUR 940.00
50 x 50 mm	EUR 878.00	EUR 1210.00	
100 x 100 mm	EUR 1863.00		

#### Discs

**Web Code**  
 792-053-392  
 006-670-870  
 833-853-998  
 231-747-483  
 968-435-058  
 054-381-677

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 491.00	EUR 714.00	EUR 915.00
6 mm	EUR 580.00	EUR 840.00	EUR 1116.00
8 mm	EUR 669.00	EUR 967.00	EUR 1321.00
10 mm	EUR 759.00	EUR 1095.00	EUR 1527.00
15 mm	EUR 980.00	EUR 1409.00	
25 mm	EUR 1424.00		

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI000215**

Thickness ..... **0.012mm**

Purity ..... **99.6+%**

#### NLT Sizes

**Web Code**  
 020-471-715  
 229-759-260

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
100 x 100 mm	EUR 370.00	EUR 470.00	EUR 676.00	EUR 917.00	
200 x 200 mm	EUR 598.00	EUR 793.00	EUR 1185.00		

#### Sizes LT

**Web Code**  
 042-393-568  
 139-628-099  
 107-841-890

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	EUR 199.00	EUR 229.00	EUR 293.00	EUR 376.00	EUR 510.00
50 x 50 mm	EUR 256.00	EUR 309.00	EUR 421.00	EUR 556.00	EUR 765.00
100 x 100 mm	EUR 407.00	EUR 517.00	EUR 743.00	EUR 1008.00	

#### Coil

**Web Code**  
 252-822-899  
 602-855-739  
 356-966-276  
 620-776-860

Length	Quantity
	1 Reel
0.2 m	EUR 632.00
0.3 m	EUR 735.00
0.5 m	EUR 899.00
1 m	EUR 1200.00

#### Discs

**Web Code**  
 597-102-260  
 637-776-627  
 722-082-013  
 260-256-451  
 532-062-205  
 507-778-596  
 472-323-015

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 366.00	EUR 451.00	EUR 545.00
6 mm	EUR 383.00	EUR 476.00	EUR 584.00
8 mm	EUR 400.00	EUR 501.00	EUR 623.00
10 mm	EUR 418.00	EUR 525.00	EUR 661.00
15 mm	EUR 461.00	EUR 586.00	EUR 758.00
25 mm	EUR 547.00	EUR 709.00	EUR 952.00
50 mm	EUR 764.00	EUR 1016.00	

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000220**

Thickness ..... **0.0125mm**

Purity ..... **99.6+%**

#### NLT Sizes

**Web Code**  
 658-526-576  
 028-348-496  
 999-863-822

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
100 x 100 mm	EUR 325.00	EUR 403.00	EUR 559.00	EUR 739.00	
150 x 150 mm	EUR 416.00	EUR 532.00	EUR 763.00		
279 x 300 mm	EUR 670.00	EUR 891.00			

#### Sizes LT

**Web Code**  
 884-849-128  
 723-150-208  
 881-950-459  
 265-809-660  
 142-915-249

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	EUR 188.00	EUR 209.00	EUR 253.00	EUR 306.00	EUR 387.00
50 x 50 mm	EUR 233.00	EUR 273.00	EUR 355.00	EUR 450.00	EUR 591.00
100 x 100 mm	EUR 357.00	EUR 443.00	EUR 615.00	EUR 813.00	
150 x 150 mm	EUR 499.00	EUR 638.00	EUR 916.00		
279 x 300 mm	EUR 838.00	EUR 1114.00			

#### Coil

**Web Code**  
 046-933-275

Length	Quantity
	1 Reel
0.5 m	EUR 861.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

Metal – Titanium



**Titanium**

**Ti**



**Foil**

**TI000230**

Thickness ..... **0.015mm**

Purity ..... **99.6+%**

**Size**

**Web Code**

603-751-240  
 468-903-772  
 612-965-543  
 382-539-332  
 657-861-588

**Size**

25 x 25 mm  
 50 x 50 mm  
 100 x 100 mm  
 130 x 150 mm  
 266 x 300 mm

		Quantity							
		1pc	2pcs	5pcs	10pcs	20pcs			
EUR	173.00	EUR	194.00	EUR	237.00	EUR	289.00	EUR	369.00
EUR	218.00	EUR	257.00	EUR	337.00	EUR	430.00	EUR	569.00
EUR	307.00	EUR	383.00	EUR	537.00	EUR	713.00		
EUR	378.00	EUR	483.00	EUR	695.00				
EUR	633.00	EUR	844.00						

**Coil**

**Web Code**

650-175-936  
 263-144-779

**Width 266mm**

**Length**

0.5 m  
 1 m

**Quantity**

**1 Reel**  
 EUR 814.00  
 EUR 1085.00

**Discs**

**Web Code**

492-484-908  
 560-623-461  
 077-932-426  
 741-558-443  
 694-807-936  
 850-990-458  
 373-804-051

**Diameter**

4 mm  
 6 mm  
 8 mm  
 10 mm  
 15 mm  
 25 mm  
 50 mm

**Quantity**

		Quantity			
		10 discs	20 discs	50 discs	
EUR	267.00	EUR	304.00	EUR	391.00
EUR	280.00	EUR	323.00	EUR	421.00
EUR	294.00	EUR	342.00	EUR	452.00
EUR	308.00	EUR	361.00	EUR	482.00
EUR	341.00	EUR	409.00	EUR	558.00
EUR	409.00	EUR	505.00	EUR	710.00
EUR	579.00	EUR	746.00	EUR	1092.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000251**

Thickness ..... **0.02mm**

Purity ..... **99.6+%**

Temper ..... **Annealed**

**Size**

**Web Code**

725-505-933  
 013-347-084  
 862-537-128  
 547-313-928  
 151-240-699

**Size**

25 x 25 mm  
 50 x 50 mm  
 95 x 100 mm  
 150 x 150 mm  
 197 x 300 mm

		Quantity							
		1pc	2pcs	5pcs	10pcs	20pcs			
EUR	167.00	EUR	189.00	EUR	233.00	EUR	287.00	EUR	369.00
EUR	214.00	EUR	254.00	EUR	337.00	EUR	433.00	EUR	576.00
EUR	301.00	EUR	378.00	EUR	533.00	EUR	711.00	EUR	968.00
EUR	399.00	EUR	516.00	EUR	750.00	EUR	1018.00		
EUR	571.00	EUR	759.00	EUR	1158.00				

**Coil**

**Web Code**

780-977-641  
 688-247-503  
 030-949-833

**Width 180mm**

**Length**

0.5 m  
 1 m  
 2 m

**Quantity**

**1 Reel**  
 EUR 710.00  
 EUR 941.00  
 EUR 1409.00

**Discs**

**Web Code**

591-051-892  
 881-483-249  
 185-401-434  
 175-177-199  
 897-149-426  
 143-681-926  
 960-248-212

**Diameter**

4 mm  
 6 mm  
 8 mm  
 10 mm  
 15 mm  
 25 mm  
 50 mm

**Quantity**

		Quantity			
		10 discs	20 discs	50 discs	
EUR	259.00	EUR	296.00	EUR	384.00
EUR	273.00	EUR	316.00	EUR	416.00
EUR	287.00	EUR	336.00	EUR	447.00
EUR	301.00	EUR	356.00	EUR	479.00
EUR	336.00	EUR	406.00	EUR	558.00
EUR	407.00	EUR	505.00	EUR	715.00
EUR	583.00	EUR	755.00	EUR	1110.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000295**

Thickness ..... **0.025mm**

High Purity ..... **99.99+%**

Temper ..... **As rolled**

**Size**

**Web Code**

260-020-112  
 502-513-281  
 814-153-684

**Size**

25 x 25 mm  
 50 x 50 mm  
 100 x 100 mm

**Quantity**

		1pc	2pcs	5pcs	
EUR	289.00	EUR	375.00	EUR	551.00
EUR	484.00	EUR	711.00		
EUR	1318.00				

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**Titanium**

**Ti**



**Foil**

**TI000290**

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

Purity ..... **99.6+%**

**Size**

**Web Code**

031-029-506  
 878-697-274  
 837-161-390  
 645-165-294  
 530-740-549

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	EUR 118.00	EUR 134.00	EUR 172.00	EUR 227.00	EUR 297.00
50 x 50 mm	EUR 137.00	EUR 161.00	EUR 215.00	EUR 288.00	EUR 383.00
100 x 100 mm	EUR 176.00	EUR 216.00	EUR 301.00	EUR 410.00	EUR 556.00
150 x 150 mm	EUR 215.00	EUR 270.00	EUR 388.00	EUR 533.00	
300 x 300 mm	EUR 331.00	EUR 434.00	EUR 647.00		

**Coil**

**Web Code**

541-201-473  
 706-989-091  
 373-635-638

**Width 305mm**

Length	1 Reel
	0.5 m
1 m	EUR 546.00
2 m	EUR 796.00

**Discs**

**Web Code**

041-289-593  
 161-195-367  
 149-422-240  
 677-783-752  
 722-970-744  
 371-344-688  
 418-080-124

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 273.00	EUR 332.00	EUR 502.00
6 mm	EUR 279.00	EUR 340.00	EUR 516.00
8 mm	EUR 285.00	EUR 348.00	EUR 529.00
10 mm	EUR 291.00	EUR 357.00	EUR 542.00
15 mm	EUR 305.00	EUR 377.00	EUR 575.00
25 mm	EUR 335.00	EUR 419.00	EUR 640.00
50 mm	EUR 408.00	EUR 523.00	EUR 805.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000300**

Thickness ..... **0.03mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**

**Web Code**

998-215-480  
 776-929-668  
 116-205-498  
 525-680-067  
 710-000-318

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	EUR 133.00	EUR 142.00	EUR 162.00	EUR 188.00	EUR 232.00
50 x 50 mm	EUR 149.00	EUR 165.00	EUR 199.00	EUR 241.00	EUR 307.00
100 x 100 mm	EUR 183.00	EUR 213.00	EUR 274.00	EUR 347.00	EUR 456.00
150 x 150 mm	EUR 216.00	EUR 260.00	EUR 349.00	EUR 453.00	EUR 606.00
200 x 300 mm	EUR 280.00	EUR 350.00	EUR 491.00		

**Coil**

**Web Code**

780-329-650  
 750-038-818  
 754-861-569

**Width 200mm**

Length	1 Reel
	0.5 m
1 m	EUR 450.00
2 m	EUR 575.00

**Discs**

**Web Code**

873-554-681  
 194-325-373  
 290-663-064  
 332-886-005  
 610-757-511  
 344-689-593  
 086-195-872

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 218.00	EUR 243.00	EUR 304.00
6 mm	EUR 223.00	EUR 249.00	EUR 314.00
8 mm	EUR 227.00	EUR 255.00	EUR 323.00
10 mm	EUR 231.00	EUR 261.00	EUR 333.00
15 mm	EUR 242.00	EUR 276.00	EUR 357.00
25 mm	EUR 263.00	EUR 306.00	EUR 404.00
50 mm	EUR 316.00	EUR 381.00	EUR 523.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000315**

Thickness ..... **0.05mm**  
 Temper ..... **As rolled**

High Purity ..... **99.99+%**

**Size**

**Web Code**

136-555-505  
 069-442-058  
 680-253-151

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 274.00	EUR 354.00	EUR 519.00
50 x 50 mm	EUR 455.00	EUR 676.00	
100 x 100 mm	EUR 1248.00		

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**Titanium**

**Ti**



**Foil**

**TI000310**

Thickness ..... **0.05mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**

**Web Code**  
 774-477-060  
 809-628-922  
 203-623-286  
 452-908-860  
 162-476-409

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	EUR 106.00	EUR 118.00	EUR 149.00	EUR 191.00	EUR 241.00
50 x 50 mm	EUR 123.00	EUR 144.00	EUR 189.00	EUR 248.00	EUR 321.00
100 x 100 mm	EUR 159.00	EUR 194.00	EUR 269.00	EUR 361.00	EUR 481.00
150 x 150 mm	EUR 195.00	EUR 245.00	EUR 349.00	EUR 475.00	
300 x 300 mm	EUR 303.00	EUR 397.00	EUR 589.00		

**Coil**

**Web Code**  
 446-242-685  
 613-602-427  
 700-305-724

Length	1 Reel
	0.5 m
1 m	EUR 515.00
2 m	EUR 680.00

**Discs**

**Web Code**  
 085-074-265  
 634-286-980  
 285-865-592  
 733-188-886  
 648-612-419  
 076-552-726  
 569-092-458

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 218.00	EUR 248.00	EUR 334.00
6 mm	EUR 223.00	EUR 255.00	EUR 344.00
8 mm	EUR 227.00	EUR 261.00	EUR 355.00
10 mm	EUR 232.00	EUR 268.00	EUR 365.00
15 mm	EUR 243.00	EUR 284.00	EUR 390.00
25 mm	EUR 266.00	EUR 316.00	EUR 441.00
50 mm	EUR 323.00	EUR 396.00	EUR 568.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000351**

Thickness ..... **0.075mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**  
 Condition ..... **Flattened**

**Size**

**Web Code**  
 241-256-776  
 156-724-497  
 025-928-623

Size	Quantity		
	1pc	5pcs	10pcs
100 x 100 mm	EUR 242.00	EUR 297.00	EUR 407.00
150 x 200 mm	EUR 335.00	EUR 428.00	EUR 614.00
200 x 300 mm	EUR 426.00	EUR 556.00	EUR 817.00

**Discs**

**Web Code**  
 242-222-155  
 735-695-837  
 452-586-774  
 197-150-362  
 671-494-452  
 734-313-015  
 026-127-530

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 226.00	EUR 254.00	EUR 321.00
6 mm	EUR 234.00	EUR 265.00	EUR 339.00
8 mm	EUR 242.00	EUR 277.00	EUR 357.00
10 mm	EUR 250.00	EUR 288.00	EUR 375.00
15 mm	EUR 270.00	EUR 316.00	EUR 420.00
25 mm	EUR 310.00	EUR 373.00	EUR 509.00
50 mm	EUR 410.00	EUR 515.00	EUR 735.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000350**

Thickness ..... **0.075mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**

**Web Code**  
 123-954-154  
 494-270-281  
 783-783-283  
 972-902-877  
 612-862-167

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	EUR 140.00	EUR 152.00	EUR 177.00	EUR 210.00	EUR 263.00
50 x 50 mm	EUR 163.00	EUR 185.00	EUR 230.00	EUR 285.00	EUR 369.00
100 x 100 mm	EUR 211.00	EUR 252.00	EUR 336.00	EUR 435.00	EUR 580.00
150 x 150 mm	EUR 258.00	EUR 319.00	EUR 442.00	EUR 585.00	EUR 792.00
300 x 300 mm	EUR 400.00	EUR 520.00	EUR 760.00		

**Coil**

**Web Code**  
 243-569-985  
 607-769-501  
 971-192-093

Length	1 Reel
	0.5 m
1 m	EUR 674.00
2 m	EUR 891.00

**Discs**

**Web Code**  
 386-192-659  
 274-079-101  
 259-896-320  
 487-045-860  
 880-728-253  
 091-032-385  
 379-046-876

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 222.00	EUR 248.00	EUR 312.00
6 mm	EUR 228.00	EUR 257.00	EUR 326.00
8 mm	EUR 234.00	EUR 265.00	EUR 339.00
10 mm	EUR 240.00	EUR 274.00	EUR 353.00
15 mm	EUR 255.00	EUR 295.00	EUR 386.00
25 mm	EUR 285.00	EUR 337.00	EUR 453.00
50 mm	EUR 360.00	EUR 444.00	EUR 622.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**Metal – Titanium**

## Titanium

Ti



### Foil

**TI000371**

Thickness ..... **0.10mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**  
 Condition ..... **Flattened**

**Size**

**Web Code**  
 630-171-429  
 041-183-299

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
150 x 200 mm	EUR 369.00	EUR 476.00	EUR 690.00	EUR 962.00
200 x 300 mm	EUR 473.00	EUR 624.00	EUR 951.00	

**Discs**

**Web Code**  
 423-021-686  
 175-968-623  
 907-277-026  
 316-579-676  
 094-437-742  
 160-968-338  
 637-919-830

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 228.00	EUR 257.00	EUR 327.00
6 mm	EUR 238.00	EUR 271.00	EUR 348.00
8 mm	EUR 247.00	EUR 284.00	EUR 368.00
10 mm	EUR 256.00	EUR 297.00	EUR 389.00
15 mm	EUR 279.00	EUR 329.00	EUR 441.00
25 mm	EUR 325.00	EUR 395.00	EUR 544.00
50 mm	EUR 441.00	EUR 559.00	EUR 804.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000370**

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

Purity ..... **99.6+%**

**Size**

**Web Code**  
 380-858-910  
 607-371-481  
 921-437-060  
 179-629-378  
 664-077-116

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	EUR 145.00	EUR 158.00	EUR 187.00	EUR 223.00	EUR 280.00
50 x 50 mm	EUR 172.00	EUR 197.00	EUR 248.00	EUR 308.00	EUR 401.00
100 x 100 mm	EUR 226.00	EUR 273.00	EUR 369.00	EUR 480.00	
150 x 150 mm	EUR 280.00	EUR 350.00	EUR 490.00		
300 x 300 mm	EUR 443.00	EUR 579.00			

**Coil**

**Web Code**  
 189-018-411  
 707-882-026

Length	Quantity
	1 Reel
0.5 m	EUR 571.00
1 m	EUR 745.00

**Discs**

**Web Code**  
 809-251-386  
 156-416-369  
 552-049-618  
 006-211-220  
 776-410-055  
 051-251-261  
 406-410-729

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 226.00	EUR 253.00	EUR 318.00
6 mm	EUR 232.00	EUR 262.00	EUR 334.00
8 mm	EUR 239.00	EUR 272.00	EUR 349.00
10 mm	EUR 246.00	EUR 282.00	EUR 364.00
15 mm	EUR 263.00	EUR 306.00	EUR 403.00
25 mm	EUR 298.00	EUR 355.00	EUR 479.00
50 mm	EUR 383.00	EUR 476.00	EUR 672.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000385**

Thickness ..... **0.125mm**  
 Temper ..... **As rolled**

High Purity ..... **99.99+%**

**Size**

**Web Code**  
 727-305-262  
 913-150-763  
 143-849-769

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 226.00	EUR 286.00	EUR 461.00
50 x 50 mm	EUR 370.00	EUR 653.00	
100 x 100 mm	EUR 1203.00		

**Discs**

**Web Code**  
 981-214-161  
 651-770-958  
 471-373-838  
 921-732-484  
 216-554-361

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 283.00	EUR 364.00	EUR 477.00
6 mm	EUR 318.00	EUR 414.00	EUR 558.00
8 mm	EUR 353.00	EUR 465.00	EUR 696.00
10 mm	EUR 389.00	EUR 517.00	EUR 908.00
15 mm	EUR 476.00	EUR 783.00	

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

Metal – Titanium

**Titanium**

**Ti**



**Foil**

**TI000380**

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

Purity ..... **99.6+%**

**Size**

**Web Code**

057-906-071  
 238-253-034  
 781-636-016  
 704-503-213  
 062-901-753  
 922-485-882

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	EUR 109.00	EUR 121.00	EUR 150.00	EUR 191.00	EUR 265.00
50 x 50 mm	EUR 125.00	EUR 144.00	EUR 186.00	EUR 242.00	EUR 337.00
100 x 100 mm	EUR 158.00	EUR 190.00	EUR 258.00	EUR 345.00	EUR 482.00
150 x 150 mm	EUR 190.00	EUR 235.00	EUR 331.00	EUR 447.00	
200 x 300 mm	EUR 251.00	EUR 322.00	EUR 508.00		
292 x 300 mm	EUR 284.00	EUR 369.00			

**Coil**

**Web Code**

545-948-500  
 862-715-984

**Width 292mm**

Length	1 Reel
	0.5 m EUR 335.00
1 m EUR 472.00	

**Discs**

**Web Code**

557-246-320  
 655-797-546  
 974-690-389  
 836-290-194  
 536-267-545  
 033-446-776  
 180-848-104

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 223.00	EUR 278.00	EUR 339.00
6 mm	EUR 227.00	EUR 284.00	EUR 349.00
8 mm	EUR 231.00	EUR 290.00	EUR 358.00
10 mm	EUR 235.00	EUR 296.00	EUR 367.00
15 mm	EUR 245.00	EUR 310.00	EUR 390.00
25 mm	EUR 266.00	EUR 339.00	EUR 436.00
50 mm	EUR 317.00	EUR 412.00	EUR 551.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000382**

Thickness ..... **0.140mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**

**Web Code**

606-012-500  
 010-177-731  
 272-216-225  
 027-035-967  
 379-493-508  
 742-088-872

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	EUR 110.00	EUR 123.00	EUR 153.00	EUR 196.00	EUR 271.00
50 x 50 mm	EUR 128.00	EUR 148.00	EUR 193.00	EUR 251.00	EUR 350.00
100 x 100 mm	EUR 163.00	EUR 198.00	EUR 271.00	EUR 363.00	EUR 507.00
150 x 150 mm	EUR 199.00	EUR 248.00	EUR 350.00	EUR 474.00	
160 x 300 mm	EUR 247.00	EUR 316.00	EUR 459.00		
300 x 300 mm	EUR 304.00	EUR 397.00			

**Coil**

**Web Code**

436-693-678  
 751-563-854

**Width 305mm**

Length	1 Reel
	0.5 m EUR 363.00
1 m EUR 505.00	

**Discs**

**Web Code**

028-375-940  
 546-997-443  
 374-685-253  
 835-655-353  
 456-918-924  
 114-862-575  
 357-818-460

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 223.00	EUR 280.00	EUR 341.00
6 mm	EUR 228.00	EUR 286.00	EUR 351.00
8 mm	EUR 232.00	EUR 292.00	EUR 361.00
10 mm	EUR 237.00	EUR 298.00	EUR 371.00
15 mm	EUR 248.00	EUR 314.00	EUR 396.00
25 mm	EUR 270.00	EUR 346.00	EUR 446.00
50 mm	EUR 326.00	EUR 425.00	EUR 572.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000401**

Thickness ..... **0.2mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

Condition ..... **Flattened**

**Size**

**Web Code**

907-888-770  
 204-903-429  
 313-677-415

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
50 x 50 mm	EUR 156.00	EUR 188.00	EUR 256.00	EUR 341.00
100 x 100 mm	EUR 220.00	EUR 278.00	EUR 398.00	
200 x 300 mm	EUR 404.00	EUR 538.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**Metal – Titanium**

## Titanium

Ti



### Foil

**TI000400**

Thickness ..... **0.2mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

#### Size

##### Web Code

129-380-472  
 580-405-247  
 941-750-285  
 236-895-810  
 973-163-541

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	EUR 116.00	EUR 131.00	EUR 166.00	EUR 214.00	EUR 296.00
50 x 50 mm	EUR 139.00	EUR 164.00	EUR 218.00	EUR 287.00	EUR 400.00
100 x 100 mm	EUR 186.00	EUR 230.00	EUR 322.00	EUR 434.00	
150 x 150 mm	EUR 232.00	EUR 295.00	EUR 426.00		
300 x 300 mm	EUR 372.00	EUR 493.00			

#### Coil

Web Code  
 825-843-223  
 228-266-286

Width **300mm**

Length	1 Reel
	0.5 m
1 m	EUR 598.00

#### Discs

Web Code  
 986-033-217  
 968-970-654  
 543-435-716  
 178-645-566  
 380-041-064  
 595-064-213  
 299-707-372

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 226.00	EUR 284.00	EUR 372.00
6 mm	EUR 232.00	EUR 292.00	EUR 385.00
8 mm	EUR 238.00	EUR 300.00	EUR 398.00
10 mm	EUR 244.00	EUR 309.00	EUR 411.00
15 mm	EUR 259.00	EUR 329.00	EUR 444.00
25 mm	EUR 288.00	EUR 371.00	EUR 511.00
50 mm	EUR 362.00	EUR 476.00	EUR 677.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000410**

Thickness ..... **0.25mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

#### Size

Web Code  
 768-534-698  
 066-835-971  
 354-498-924  
 312-367-578  
 045-940-137

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	EUR 118.00	EUR 134.00	EUR 170.00	EUR 220.00	EUR 305.00
50 x 50 mm	EUR 143.00	EUR 170.00	EUR 227.00	EUR 300.00	EUR 418.00
100 x 100 mm	EUR 194.00	EUR 241.00	EUR 340.00	EUR 460.00	
150 x 150 mm	EUR 245.00	EUR 313.00	EUR 453.00		
300 x 300 mm	EUR 396.00	EUR 527.00			

#### Coil

Web Code  
 316-367-513  
 742-519-425

Width **305mm**

Length	1 Reel
	0.5 m
1 m	EUR 647.00

#### Discs

Web Code  
 674-850-554  
 356-312-880  
 539-103-561  
 387-945-396  
 493-170-938  
 646-364-761  
 795-591-392

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 227.00	EUR 285.00	EUR 374.00
6 mm	EUR 234.00	EUR 294.00	EUR 388.00
8 mm	EUR 240.00	EUR 303.00	EUR 403.00
10 mm	EUR 247.00	EUR 312.00	EUR 417.00
15 mm	EUR 263.00	EUR 335.00	EUR 453.00
25 mm	EUR 295.00	EUR 380.00	EUR 525.00
50 mm	EUR 375.00	EUR 495.00	EUR 707.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI000416**

Thickness ..... **0.3mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

#### Size

Web Code  
 169-498-291  
 235-167-601  
 221-732-416

Size	Quantity		
	1pc	2pcs	5pcs
100 x 100 mm	EUR 200.00	EUR 250.00	EUR 354.00
150 x 150 mm	EUR 254.00	EUR 326.00	EUR 475.00
300 x 300 mm	EUR 416.00	EUR 555.00	

#### Coil

Web Code  
 132-825-015  
 554-285-099

Width **300mm**

Length	1 Reel
	0.5 m
1 m	EUR 678.00

#### Discs

Web Code  
 408-518-289  
 688-508-383  
 143-762-475  
 787-600-313  
 644-217-040  
 360-282-234  
 548-345-091

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 228.00	EUR 286.00	EUR 376.00
6 mm	EUR 235.00	EUR 296.00	EUR 391.00
8 mm	EUR 242.00	EUR 306.00	EUR 407.00
10 mm	EUR 249.00	EUR 315.00	EUR 422.00
15 mm	EUR 266.00	EUR 339.00	EUR 460.00
25 mm	EUR 300.00	EUR 388.00	EUR 537.00
50 mm	EUR 386.00	EUR 509.00	EUR 730.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

## Titanium

Ti



### Foil

<b>TI000419</b>	Thickness .....	<b>0.35mm</b>	Purity .....	<b>99.6+%</b>
	Temper .....	<b>Annealed</b>	Condition .....	<b>Platinised on both sides</b>
	<b>Size</b>		<b>Quantity</b>	
<b>Web Code</b>	<b>Size</b>		<b>1pc</b>	
386-456-572	100 x 100 mm		EUR 571.00	

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

<b>TI000423</b>	Thickness .....	<b>0.5mm</b>	Purity .....	<b>99.6+%</b>
	Condition .....	<b>Ion Implanted</b>		
	<b>Size</b>		<b>Quantity</b>	
<b>Web Code</b>	<b>Size</b>		<b>1pc</b>	
116-312-044	50 x 50 mm		POA	

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.  
 This material has been Ion Implanted with Nitrogen Ions to a dose of  $3 \times 10^{17}$  ions  $\text{cm}^{-2}$ .

<b>TI000425</b>	Thickness .....	<b>0.5mm</b>	Purity .....	<b>99.6+%</b>
	Temper .....	<b>Annealed</b>	Condition .....	<b>Polished on both sides</b>
	<b>Size</b>		<b>Quantity</b>	
<b>Web Code</b>	<b>Size</b>		<b>1pc</b>	<b>2pcs</b>
772-974-842	100 x 100 mm		EUR 209.00	EUR 269.00 EUR 408.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

<b>TI000421</b>	Thickness .....	<b>0.5mm</b>	Purity .....	<b>99.6+%</b>
	Surface treatment .....	<b>Titanium Nitride coating 2-3 microns</b>		
	<b>Size</b>		<b>Quantity</b>	
<b>Web Code</b>	<b>Size</b>		<b>1pc</b>	<b>2pcs</b>
541-806-825	25 x 25 mm		EUR 168.00	EUR 204.00 EUR 282.00
725-858-944	50 x 50 mm		EUR 243.00	EUR 310.00
732-369-991	100 x 100 mm		EUR 393.00	

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.  
 This item is shown as an example of Titanium Nitride (TiN) coated material. Other items or your own material may also have a coating applied, please ask for more details.

<b>TI000420</b>	Thickness .....	<b>0.5mm</b>	Purity .....	<b>99.6+%</b>		
	Temper .....	<b>Annealed</b>				
	<b>Size</b>		<b>Quantity</b>			
<b>Web Code</b>	<b>Size</b>		<b>1pc</b>	<b>2pcs</b>	<b>5pcs</b>	<b>10pcs</b>
395-215-502	25 x 25 mm		EUR 111.00	EUR 125.00	EUR 156.00	EUR 201.00 EUR 252.00
401-947-946	50 x 50 mm		EUR 130.00	EUR 150.00	EUR 197.00	EUR 259.00 EUR 333.00
243-490-913	100 x 100 mm		EUR 166.00	EUR 202.00	EUR 278.00	EUR 374.00
436-363-166	150 x 150 mm		EUR 202.00	EUR 253.00	EUR 359.00	
545-396-026	300 x 300 mm		EUR 311.00	EUR 454.00		
	<b>Discs</b>		<b>Quantity</b>			
<b>Web Code</b>	<b>Diameter</b>		<b>10 discs</b>	<b>20 discs</b>	<b>50 discs</b>	
174-503-000	4 mm		EUR 246.00	EUR 282.00	EUR 388.00	
812-883-333	6 mm		EUR 251.00	EUR 290.00	EUR 401.00	
610-424-962	8 mm		EUR 257.00	EUR 298.00	EUR 413.00	
303-115-363	10 mm		EUR 262.00	EUR 306.00	EUR 425.00	
889-416-404	15 mm		EUR 276.00	EUR 325.00	EUR 456.00	
177-058-647	25 mm		EUR 304.00	EUR 365.00	EUR 518.00	
132-334-408	50 mm		EUR 373.00	EUR 463.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

<b>TI000417</b>	Thickness .....	<b>0.5mm</b>	Purity .....	<b>99.6+%</b>	
	Temper .....	<b>Annealed</b>	Condition .....	<b>Polished on 1 side</b>	
	<b>Size</b>		<b>Quantity</b>		
<b>Web Code</b>	<b>Size</b>		<b>1pc</b>	<b>2pcs</b>	<b>5pcs</b>
832-171-022	10 x 10 mm		EUR 194.00	EUR 241.00	EUR 359.00 EUR 629.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

Metal – Titanium

## Titanium

Ti



### Foil

**TI000422**

Thickness ..... **0.7mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

#### Size

##### Web Code

205-817-696  
 727-209-309  
 901-170-200  
 646-283-102  
 785-398-996  
 174-873-228

Size	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
25 x 25 mm	EUR 120.00	EUR 131.00	EUR 154.00	EUR 183.00	EUR 231.00
50 x 50 mm	EUR 140.00	EUR 159.00	EUR 199.00	EUR 248.00	EUR 322.00
100 x 100 mm	EUR 181.00	EUR 217.00	EUR 290.00	EUR 376.00	
150 x 150 mm	EUR 222.00	EUR 274.00	EUR 381.00		
300 x 300 mm	EUR 344.00	EUR 447.00			
500 x 500 mm	EUR 506.00				

#### Discs

##### Web Code

859-151-435  
 393-937-489  
 242-177-694  
 272-211-949  
 026-499-559  
 312-438-349  
 054-791-401

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 211.00	EUR 239.00	EUR 308.00
6 mm	EUR 216.00	EUR 247.00	EUR 321.00
8 mm	EUR 222.00	EUR 255.00	EUR 333.00
10 mm	EUR 228.00	EUR 263.00	EUR 346.00
15 mm	EUR 242.00	EUR 283.00	EUR 378.00
25 mm	EUR 270.00	EUR 323.00	EUR 441.00
50 mm	EUR 341.00	EUR 424.00	EUR 601.00

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI000432**

Thickness ..... **1.0mm**  
 Temper ..... **As rolled**

High Purity ..... **99.99+%**

#### Size

##### Web Code

584-866-631  
 108-336-569  
 542-069-398

Size	Quantity		
	1pc	2pcs	5pcs
25 x 25 mm	EUR 249.00	EUR 332.00	EUR 512.00
50 x 50 mm	EUR 378.00	EUR 552.00	
100 x 100 mm	EUR 924.00		

#### Discs

##### Web Code

758-671-372  
 833-914-083  
 239-257-642  
 907-208-069  
 401-012-081

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 471.00	EUR 665.00	EUR 1218.00
6 mm	EUR 507.00	EUR 717.00	EUR 1302.00
8 mm	EUR 544.00	EUR 770.00	EUR 1388.00
10 mm	EUR 581.00	EUR 824.00	EUR 1518.00
15 mm	EUR 672.00	EUR 971.00	

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI000433**

Thickness ..... **1.0mm**  
 Temper ..... **As rolled**

High Purity ..... **99.999%**

#### Size

##### Web Code

812-737-861  
 592-230-675

Size	Quantity	
	1pc	2pcs
25 x 25 mm	EUR 393.00	EUR 536.00
50 x 50 mm	EUR 767.00	

#### Discs

##### Web Code

603-234-420  
 404-307-191  
 538-399-744  
 299-968-929

Diameter	Quantity		
	10 discs	20 discs	50 discs
4 mm	EUR 553.00	EUR 782.00	EUR 1406.00
6 mm	EUR 631.00	EUR 895.00	
8 mm	EUR 711.00	EUR 1010.00	
10 mm	EUR 792.00		

Typical Analysis : Al 2, Cu 1, Fe 3, Si 1, Sn 1

**TI000431**

Thickness ..... **1.0mm**  
 Surface treatment ..... **Titanium Nitride coating 2-3 microns**

Purity ..... **99.6+%**

#### Size

##### Web Code

702-374-695  
 796-826-641  
 603-328-130

Size	Quantity			
	1pc	2pcs	5pcs	10pcs
25 x 25 mm	EUR 163.00	EUR 197.00	EUR 271.00	EUR 362.00
50 x 50 mm	EUR 233.00	EUR 297.00	EUR 428.00	
100 x 100 mm	EUR 374.00			

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

Metal – Titanium



**Titanium**

**Ti**



**Foil**

**TI000430**

Thickness ..... **1.0mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**

**Web Code**

457-003-322  
 125-412-506  
 676-571-029  
 571-381-273  
 422-657-739  
 832-224-674

**Size**  
 25 x 25 mm  
 50 x 50 mm  
 100 x 100 mm  
 150 x 150 mm  
 300 x 300 mm  
 500 x 500 mm

		Quantity				
		1pc	2pcs	5pcs	10pcs	20pcs
EUR	107.00	EUR 124.00	EUR 167.00	EUR 233.00	EUR 357.00	
EUR	122.00	EUR 144.00	EUR 200.00	EUR 279.00	EUR 422.00	
EUR	151.00	EUR 186.00	EUR 265.00	EUR 371.00		
EUR	180.00	EUR 227.00	EUR 330.00			
EUR	268.00	EUR 391.00				
EUR	493.00					

**Discs**

**Web Code**

028-078-493  
 509-804-178  
 725-523-593  
 690-438-003  
 304-758-631  
 094-828-900  
 853-618-903

**Diameter**  
 4 mm  
 6 mm  
 8 mm  
 10 mm  
 15 mm  
 25 mm  
 50 mm

		Quantity		
		10 discs	20 discs	50 discs
EUR	282.00	EUR 401.00	EUR 580.00	
EUR	286.00	EUR 407.00	EUR 589.00	
EUR	290.00	EUR 412.00	EUR 599.00	
EUR	295.00	EUR 418.00	EUR 608.00	
EUR	305.00	EUR 433.00	EUR 631.00	
EUR	325.00	EUR 461.00	EUR 676.00	
EUR	376.00	EUR 534.00	EUR 792.00	

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI000436**

Thickness ..... **1.20mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**

**Web Code**

145-934-621  
 463-826-320

**Size**  
 150 x 150 mm  
 300 x 300 mm

		Quantity		
		1pc	2pcs	5pcs
EUR	253.00	EUR 319.00	EUR 452.00	
EUR	407.00	EUR 550.00		

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI000437**

Thickness ..... **1.5mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**

**Web Code**

101-479-356  
 684-924-816  
 615-609-851  
 951-226-388  
 903-294-963

**Size**  
 25 x 25 mm  
 50 x 50 mm  
 100 x 100 mm  
 150 x 150 mm  
 300 x 300 mm

		Quantity				
		1pc	2pcs	5pcs	10pcs	20pcs
EUR	126.00	EUR 139.00	EUR 167.00	EUR 202.00	EUR 257.00	
EUR	152.00	EUR 176.00	EUR 225.00	EUR 284.00	EUR 374.00	
EUR	204.00	EUR 249.00	EUR 342.00	EUR 449.00		
EUR	256.00	EUR 323.00	EUR 458.00			
EUR	413.00	EUR 637.00				

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.  
 We can also offer 99.99% material, prices on request.

**TI000441**

Thickness ..... **2.0mm**  
 Surface treatment ..... **Titanium Nitride coating 2-3 microns**

Purity ..... **99.6+%**

**Size**

**Web Code**

936-788-231  
 098-526-117  
 315-763-502

**Size**  
 25 x 25 mm  
 50 x 50 mm  
 100 x 100 mm

		Quantity			
		1pc	2pcs	5pcs	10pcs
EUR	171.00	EUR 206.00	EUR 282.00	EUR 375.00	
EUR	244.00	EUR 309.00	EUR 444.00		
EUR	389.00				

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.  
 This item is shown as an example of Titanium Nitride (TiN) coated material.

**TI000440**

Thickness ..... **2.0mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**

**Web Code**

263-376-857  
 922-100-049  
 262-509-593  
 813-694-122  
 711-767-761  
 970-963-485

**Size**  
 25 x 25 mm  
 50 x 50 mm  
 100 x 100 mm  
 150 x 150 mm  
 300 x 300 mm  
 500 x 500 mm

		Quantity				
		1pc	2pcs	5pcs	10pcs	20pcs
EUR	128.00	EUR 141.00	EUR 170.00	EUR 207.00	EUR 265.00	
EUR	155.00	EUR 180.00	EUR 233.00	EUR 295.00	EUR 389.00	
EUR	211.00	EUR 259.00	EUR 357.00	EUR 471.00		
EUR	267.00	EUR 338.00	EUR 481.00			
EUR	433.00	EUR 579.00				
EUR	763.00					

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI000450**

Thickness ..... **2.5mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**

**Web Code**

527-982-693  
 232-154-309  
 848-973-878  
 324-906-607

**Size**  
 50 x 50 mm  
 100 x 100 mm  
 150 x 150 mm  
 300 x 300 mm

		Quantity				
		1pc	2pcs	5pcs	10pcs	20pcs
EUR	162.00	EUR 190.00	EUR 247.00	EUR 316.00	EUR 419.00	
EUR	224.00	EUR 278.00	EUR 386.00	EUR 512.00	EUR 804.00	
EUR	286.00	EUR 366.00	EUR 525.00	EUR 865.00		
EUR	473.00	EUR 699.00	EUR 1600.00			

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**Metal – Titanium**

## Titanium

Ti



### Foil

**TI000460**

Thickness ..... **3.0mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**

**Web Code**

881-241-821  
 155-226-563  
 403-321-253  
 549-675-408  
 415-152-205

**Size**

50 x 50 mm  
 100 x 100 mm  
 150 x 150 mm  
 190 x 300 mm  
 300 x 300 mm

**Quantity**

1pc	2pcs	5pcs
EUR 167.00	EUR 197.00	EUR 259.00
EUR 234.00	EUR 292.00	EUR 409.00
EUR 302.00	EUR 387.00	
EUR 421.00		
EUR 503.00		

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI000500**

Thickness ..... **3.2mm**  
 Temper ..... **As rolled**

High Purity ..... **99.99+%**

**Size**

**Web Code**

894-032-736  
 754-091-171  
 261-396-631

**Size**

25 x 25 mm  
 50 x 50 mm  
 100 x 100 mm

**Quantity**

1pc	2pcs	5pcs
EUR 260.00	EUR 347.00	EUR 536.00
EUR 398.00	EUR 620.00	
EUR 1060.00		

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.



### Sheet

**TI003140**

Thickness ..... **4.0mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Discs**

**Web Code**

192-447-187

**Diameter**

26 mm

**Quantity**

1 pcs	2 pcs
EUR POA	EUR POA

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI003150**

Thickness ..... **5.0mm**  
 Purity ..... **99.6+%**

Tolerance ..... **20 %**  
 Temper ..... **Annealed**

**Size**

**Web Code**

433-101-802  
 121-072-818

**Size**

150 x 150 mm  
 300 x 300 mm

**Quantity**

1pc
POA
POA

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI003151**

Thickness ..... **5.0mm**  
 Purity ..... **99.6+%**

Tolerance ..... **20 %**  
 Temper ..... **Annealed**

**Size**

**Web Code**

846-346-453

**Size**

20 x 20 mm

**Quantity**

1pc	2pcs	5pcs	10pcs
EUR 104.00	EUR 127.00	EUR 187.00	EUR 320.00

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI003200**

Thickness ..... **7.0mm**

Purity ..... **99.6+%**

**Size**

**Web Code**

739-589-782  
 448-715-217

**Size**

150 x 150 mm  
 300 x 300 mm

**Quantity**

1pc
POA
POA

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI003230**

Thickness ..... **8.0mm**

Purity ..... **99.6+%**

**Size**

**Web Code**

089-994-764  
 609-269-915  
 117-989-168  
 322-171-842

**Size**

75 x 75 mm  
 75 x 105 mm  
 90 x 340 mm  
 92 x 498 mm

**Quantity**

1pc
POA
POA
POA
POA

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI003250**

Thickness ..... **12.0mm**

Purity ..... **99.6+%**

**Size**

**Web Code**

089-409-444  
 176-182-493

**Size**

150 x 150 mm  
 300 x 300 mm

**Quantity**

1pc
POA
POA

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

Metal – Titanium

**Titanium**

**Ti**



**Sputtering Target**

<b>TI009100</b>	Thickness ..... <b>1.0mm</b>	High Purity ..... <b>99.99+%</b>
<b>Size</b>	<b>Quantity</b>	
<b>Web Code</b>	<b>Disc diam.</b>	<b>1disc</b>
393-206-927	33 mm	POA
Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3. These targets are normally available for immediate shipment from stock. Other sizes are available to special order.		
<b>TI009300</b>	Thickness ..... <b>3.0mm</b>	High Purity ..... <b>99.99+%</b>
<b>Size</b>	<b>Quantity</b>	
<b>Web Code</b>	<b>Disc diam.</b>	<b>1disc</b>
877-206-666	25 mm	POA
789-984-168	50 mm	POA
748-016-513	75 mm	POA
Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3. These targets are normally available for immediate shipment from stock. Other sizes are available to special order.		
<b>TI009301</b>	Thickness ..... <b>3.0mm</b>	Purity ..... <b>99.6+%</b>
<b>Size</b>	<b>Quantity</b>	
<b>Web Code</b>	<b>Disc diam.</b>	<b>1disc</b>
502-063-393	50 mm	POA
757-916-720	75 mm	POA
Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500. These targets are normally available for immediate shipment from stock. Other sizes are available to special order.		
<b>TI009600</b>	Thickness ..... <b>6.0mm</b>	High Purity ..... <b>99.99+%</b>
<b>Size</b>	<b>Quantity</b>	
<b>Web Code</b>	<b>Disc diam.</b>	<b>1disc</b>
388-404-527	25.4 mm	POA
327-130-952	50 mm	POA
930-533-923	75 mm	POA
894-411-415	101.6 mm	POA
Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3. These targets are normally available for immediate shipment from stock. Other sizes are available to special order.		
<b>TI009512</b>	Thickness ..... <b>6.0mm</b>	Purity ..... <b>99.6+%</b>
<b>Size</b>	<b>Quantity</b>	
<b>Web Code</b>	<b>Disc diam.</b>	<b>1disc</b>
503-269-618	120 mm	POA
Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.		
<b>TI009515</b>	Thickness ..... <b>6.0mm</b>	Purity ..... <b>99.6+%</b>
<b>Size</b>	<b>Quantity</b>	
<b>Web Code</b>	<b>Disc diam.</b>	<b>1disc</b>
908-701-507	152.4 mm	POA
Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.		
<b>TI009520</b>	Thickness ..... <b>6.0mm</b>	Purity ..... <b>99.6+%</b>
<b>Size</b>	<b>Quantity</b>	
<b>Web Code</b>	<b>Disc diam.</b>	<b>1disc</b>
587-693-758	203.2 mm	POA
Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.		
<b>TI009700</b>	Thickness ..... <b>7.0mm</b>	Purity ..... <b>99.6+%</b>
<b>Size</b>	<b>Quantity</b>	
<b>Web Code</b>	<b>Disc diam.</b>	<b>1disc</b>
073-522-547	50 mm	POA
190-319-810	75 mm	POA
Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500. These targets are normally available for immediate shipment from stock. Other sizes are available to special order.		

**Metal – Titanium**

## Titanium

### Ti



## Mesh

**TI008710**

Nominal Aperture..... **0.19mm**  
 Wires/inch..... **60x60**  
 Weave..... **Twill**

Wire diameter..... **0.23mm**  
 Open area ..... **20%**

**Size**

**Web Code**  
 113-282-527  
 160-318-438  
 039-809-321

Size	Quantity		
	1pc	2pcs	5pcs
50 x 50 mm	EUR 344.00	EUR 459.00	EUR 659.00
100 x 100 mm	EUR 478.00	EUR 648.00	EUR 971.00
150 x 150 mm	EUR 612.00	EUR 837.00	

**TI008720**

Nominal Aperture..... **4.3mm**  
 Wires/inch..... **4.4x4.4**  
 Condition..... **Diamond pattern**

Wire diameter..... **1.5mm**  
 Open area ..... **94%**  
 Condition..... **Platinised**

**Size**

**Web Code**  
 293-740-051

Size	Quantity
	1pc
100 x 100 mm	EUR 533.00



## Wire

**TI005100**

Diameter..... **0.05mm**  
 Temper..... **Hard**

Purity..... **99.8%**

**Length**

**Web Code**  
 703-333-766  
 916-721-398  
 590-169-228  
 771-155-069  
 044-552-997

Length	Quantity
	1 Reel
10 m	EUR 278.00
20 m	EUR 339.00
50 m	EUR 463.00
100 m	EUR 603.00
200 m	EUR 803.00

Typical Analysis : Al 1, Cr 30, Cu 10, Fe 90, Mg 10, Mn 400, Ni 50, Si 30, V 50, H 80, N 20, O 400.

**TI005108**

Diameter..... **0.08mm**  
 Temper..... **As drawn**

Purity..... **99.6+%**

**Length**

**Web Code**  
 688-190-022

Length	Quantity
	1 Reel
10 m	EUR 278.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI005112**

Diameter..... **0.125mm**  
 Temper..... **Annealed**

Purity..... **99.6+%**

**Length**

**Web Code**  
 162-135-533  
 266-947-713  
 622-638-419  
 368-464-341  
 349-966-852

Length	Quantity
	1 Reel
10 m	EUR 182.00
20 m	EUR 221.00
50 m	EUR 300.00
100 m	EUR 389.00
200 m	EUR 522.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI005119**

Diameter..... **0.20mm**  
 Temper..... **As drawn**

Purity..... **99.6+%**

**Length**

**Web Code**  
 109-417-803

Length	Quantity
	1 Reel
10 m	EUR 177.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.  
 10m reels only.

**TI005121**

Diameter..... **0.20mm**  
 Temper..... **Annealed**

Purity..... **99.6+%**

**Length**

**Web Code**  
 407-756-100  
 474-042-012  
 963-914-025  
 782-680-564  
 364-257-070  
 434-034-311

Length	Quantity
	1 Reel
1 m	EUR 122.00
5 m	EUR 145.00
25 m	EUR 197.00
100 m	EUR 294.00
200 m	EUR 378.00
500 m	EUR 730.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

## Titanium

Ti



### Wire

TI005124

Diameter . . . . . **0.25mm**  
 Temper . . . . . **As drawn**

Purity . . . . . **99.6+%**

**Length**  
**Web Code**  
 552-625-721

Quantity	
Length	1 Reel
10 m	EUR 171.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.  
 10m reels only.

TI005120

Diameter . . . . . **0.25mm**  
 Temper . . . . . **As drawn**

High Purity . . . . . **99.99+%**

**Length**  
**Web Code**  
 254-793-337  
 849-171-880  
 146-486-879  
 310-857-604

Quantity	
Length	1 Reel
0.5 m	EUR 159.00
1 m	EUR 199.00
2 m	EUR 258.00
5 m	EUR 385.00

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

TI005122

Diameter . . . . . **0.25mm**  
 Temper . . . . . **Annealed**

Purity . . . . . **99.6+%**

**Length**  
**Web Code**  
 782-345-219  
 793-150-275  
 143-776-319  
 972-049-909  
 506-244-341  
 280-545-040

Quantity	
Length	1 Reel
1 m	EUR 123.00
5 m	EUR 147.00
25 m	EUR 202.00
100 m	EUR 304.00
200 m	EUR 392.00
500 m	EUR 795.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

TI005123

Diameter . . . . . **0.25mm**  
 Temper . . . . . **As drawn**

Purity . . . . . **99.6+%**

**Length**  
**Web Code**  
 128-690-626  
 969-449-238  
 557-759-758  
 461-325-340  
 007-612-179  
 510-587-840

Quantity	
Length	1 Reel
1 m	EUR 123.00
5 m	EUR 147.00
25 m	EUR 202.00
100 m	EUR 304.00
200 m	EUR 392.00
500 m	EUR 795.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

TI005127

Diameter . . . . . **0.5mm**  
 Temper . . . . . **Annealed**

Purity . . . . . **99.975+%**

**Length**  
**Web Code**  
 341-440-179  
 680-020-060  
 002-501-645

Quantity	
Length	1 Reel
0.5 m	EUR 160.00
1 m	EUR 200.00
2 m	EUR 267.00

Typical Analysis : Al <10, Ca <5, Cr <10, Cu <5, Fe <160, K <1, Li <1, Mg <10, Mo <10, Na <1, Si <10.

TI005128

Diameter . . . . . **0.5mm**  
 Temper . . . . . **As drawn**

High Purity . . . . . **99.99+%**

**Length**  
**Web Code**  
 809-328-225  
 166-027-687  
 753-455-659  
 181-958-579

Quantity	
Length	1 Reel
0.5 m	EUR 172.00
1 m	EUR 217.00
2 m	EUR 283.00
5 m	EUR 508.00

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

TI005125

Diameter . . . . . **0.5mm**  
 Temper . . . . . **As drawn**

Purity . . . . . **99.6+%**

**Length**  
**Web Code**  
 068-135-256  
 516-906-634  
 613-334-558  
 666-822-887  
 352-853-849

Quantity	
Length	1 Reel
1 m	EUR 120.00
5 m	EUR 147.00
25 m	EUR 209.00
100 m	EUR 323.00
200 m	EUR 433.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

Metal – Titanium

## Titanium

Ti



### Wire

**TI005126**

Diameter ..... **0.75mm** Purity ..... **99.6+%**  
 Temper ..... **As drawn**

Length		Quantity	
Web Code	Length	1 Reel	
269-768-530	1 m	EUR	128.00
906-884-492	5 m	EUR	166.00
767-359-636	10 m	EUR	194.00
691-686-624	20 m	EUR	234.00
612-284-036	50 m	EUR	315.00
717-833-543	100 m	EUR	413.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI005320**

Diameter ..... **1.0mm** Purity ..... **99.6+%**  
 Condition ..... **Straight wire** Temper ..... **As drawn**

Web Code	Length	Quantity				
		1pc	2pcs	5pcs	10pcs	20pcs
				3.6g	#1000 mm#	

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI005130**

Diameter ..... **1.0mm** Purity ..... **99.6+%**  
 Temper ..... **Annealed**

Length		Quantity	
Web Code	Length	1 Reel	
762-664-231	0.5 m	EUR	115.00
333-028-321	1 m	EUR	126.00
628-549-595	5 m	EUR	174.00
568-687-660	25 m	EUR	281.00
085-951-196	100 m	EUR	533.00

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI005129**

Diameter ..... **1.0mm** Purity ..... **99.6+%**  
 Temper ..... **As drawn**

Length		Quantity	
Web Code	Length	1 Reel	
710-202-350	0.5 m	EUR	115.00
775-296-397	1 m	EUR	126.00
912-044-669	5 m	EUR	174.00
005-581-872	25 m	EUR	281.00
697-731-818	100 m	EUR	533.00

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI005135**

Diameter ..... **1.0mm** High Purity ..... **99.99+%**  
 Temper ..... **As drawn**

Length		Quantity	
Web Code	Length	1 Reel	
743-899-888	0.5 m	EUR	204.00
987-481-525	1 m	EUR	254.00
435-199-458	2 m	EUR	327.00

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI005136**

Diameter ..... **1.0mm** Purity ..... **99.99+%**  
 Temper ..... **Annealed**

Length		Quantity	
Web Code	Length	1 Reel	
684-191-326	0.5 m	EUR	204.00
301-401-658	1 m	EUR	254.00
042-269-369	2 m	EUR	327.00

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI005140**

Diameter ..... **1.5mm** Purity ..... **99.6+%**  
 Temper ..... **As drawn**

Length		Quantity	
Web Code	Length	1 Reel	
809-085-444	1 m	EUR	141.00
506-434-790	5 m	EUR	208.00
941-505-933	10 m	EUR	258.00
755-186-249	20 m	EUR	329.00
833-122-096	50 m	EUR	518.00

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

Metal – Titanium

## Titanium

### Ti



## Wire

**TI005160**

Diameter ..... **3.0mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Length**  
**Web Code**  
 902-253-893

Quantity	
Length	1 Reel
1 m	EUR 179.00

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.



## Rod

**TI007905**

Diameter ..... **1.5mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**  
**Web Code**  
 726-938-831  
 455-869-852  
 038-382-829  
 341-063-631

Length	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
100 mm	EUR 121.00	EUR 146.00	EUR 179.00	EUR 229.00	EUR 324.00
200 mm	EUR 125.00	EUR 152.00	EUR 189.00	EUR 243.00	EUR 344.00
500 mm	EUR 134.00	EUR 165.00	EUR 209.00	EUR 271.00	EUR 384.00
1000 mm	EUR 144.00	EUR 179.00	EUR 231.00	EUR 303.00	EUR 428.00

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI007910**

Diameter ..... **2mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**  
**Web Code**  
 613-226-991  
 653-367-004  
 039-162-907  
 860-685-368

Length	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
100 mm	EUR 124.00	EUR 150.00	EUR 185.00	EUR 238.00	EUR 337.00
200 mm	EUR 129.00	EUR 158.00	EUR 198.00	EUR 256.00	EUR 363.00
490 mm	EUR 140.00	EUR 174.00	EUR 223.00	EUR 291.00	EUR 412.00
1000 mm	EUR 153.00	EUR 192.00	EUR 252.00	EUR 333.00	EUR 488.00

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI007911**

Diameter ..... **2mm**  
 Temper ..... **As drawn**

High Purity ..... **99.99+%**

**Size**  
**Web Code**  
 669-911-794  
 626-767-595  
 331-228-329  
 587-909-642

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 157.00	EUR 189.00	EUR 243.00	EUR 373.00
200 mm	EUR 183.00	EUR 225.00	EUR 367.00	EUR 636.00
500 mm	EUR 234.00	EUR 364.00	EUR 761.00	
1000 mm	EUR 358.00	EUR 626.00		

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI007913**

Diameter ..... **2mm**  
 Temper ..... **Annealed**

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

**Size**  
**Web Code**  
 487-942-601  
 720-919-424  
 246-190-801  
 263-199-777

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 170.00	EUR 202.00	EUR 257.00	EUR 386.00
200 mm	EUR 196.00	EUR 238.00	EUR 380.00	EUR 649.00
500 mm	EUR 247.00	EUR 377.00	EUR 774.00	
1000 mm	EUR 371.00	EUR 640.00		

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI007915**

Diameter ..... **3.0mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**  
**Web Code**  
 993-901-341  
 177-055-164  
 167-721-605  
 548-835-815

Length	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
100 mm	EUR 128.00	EUR 156.00	EUR 195.00	EUR 252.00	EUR 356.00
200 mm	EUR 135.00	EUR 167.00	EUR 212.00	EUR 276.00	EUR 390.00
500 mm	EUR 150.00	EUR 188.00	EUR 245.00	EUR 323.00	EUR 459.00
1000 mm	EUR 167.00	EUR 211.00	EUR 283.00	EUR 378.00	EUR 642.00

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI007916**

Diameter ..... **4mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**  
**Web Code**  
 647-843-137  
 549-782-494  
 814-360-570  
 144-236-334

Length	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
100 mm	EUR 135.00	EUR 165.00	EUR 207.00	EUR 267.00	EUR 373.00
200 mm	EUR 145.00	EUR 179.00	EUR 229.00	EUR 297.00	EUR 417.00
500 mm	EUR 164.00	EUR 206.00	EUR 272.00	EUR 372.00	EUR 627.00
1000 mm	EUR 186.00	EUR 237.00	EUR 334.00	EUR 551.00	

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

## Titanium

### Ti



## Rod

**TI007920**

Diameter ..... **5mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**

**Web Code**  
 585-670-678  
 208-829-984  
 103-746-780  
 968-344-939

Length	Quantity				
	1pc	2pcs	5pcs	10pcs	20pcs
100 mm	EUR 136.00	EUR 167.00	EUR 209.00	EUR 270.00	EUR 378.00
200 mm	EUR 146.00	EUR 181.00	EUR 232.00	EUR 302.00	EUR 424.00
500 mm	EUR 166.00	EUR 209.00	EUR 277.00	EUR 387.00	EUR 658.00
1000 mm	EUR 189.00	EUR 241.00	EUR 349.00	EUR 582.00	

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI007918**

Diameter ..... **5.0mm**  
 Temper ..... **As drawn**

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

**Size**

**Web Code**  
 428-536-198  
 267-928-716

Length	Quantity	
	1pc	2pcs
50 mm	EUR 279.00	EUR 351.00
100 mm	EUR 334.00	EUR 428.00

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI007921**

Diameter ..... **6mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**

**Web Code**  
 043-116-388  
 389-540-768  
 692-593-155  
 574-141-796

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 151.00	EUR 186.00	EUR 233.00	EUR 298.00
200 mm	EUR 163.00	EUR 203.00	EUR 260.00	EUR 336.00
500 mm	EUR 187.00	EUR 237.00	EUR 314.00	EUR 486.00
1000 mm	EUR 215.00	EUR 276.00	EUR 448.00	

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI007923**

Diameter ..... **6.2mm**  
 Temper ..... **Annealed**

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

**Size**

**Web Code**  
 017-601-271  
 571-501-549  
 384-667-485

Length	Quantity
	1pc
154 mm	EUR 390.00
370 mm	EUR 639.00
895 mm	EUR 1336.00

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI007922**

Diameter ..... **6.35mm**  
 Temper ..... **Annealed**

High Purity ..... **99.99+%**

**Size**

**Web Code**  
 664-090-505  
 519-300-427  
 277-294-013

Length	Quantity	
	1pc	2pcs
50 mm	EUR 286.00	EUR 360.00
100 mm	EUR 343.00	EUR 441.00
200 mm	EUR 424.00	

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI007925**

Diameter ..... **8.0mm**  
 Temper ..... **As drawn**

High Purity ..... **99.99+%**

**Size**

**Web Code**  
 823-918-786  
 405-093-456  
 986-116-236

Length	Quantity	
	1pc	2pcs
50 mm	EUR 321.00	EUR 411.00
100 mm	EUR 393.00	EUR 584.00
200 mm	EUR 567.00	

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI007931**

Diameter ..... **9.5mm**  
 Temper ..... **Annealed**

High Purity ..... **99.99+%**

**Size**

**Web Code**  
 351-300-359  
 912-539-653  
 918-599-677  
 824-951-989

Length	Quantity		
	1pc	2pcs	5pcs
25 mm	EUR 293.00	EUR 370.00	EUR 544.00
50 mm	EUR 353.00	EUR 457.00	
100 mm	EUR 440.00	EUR 749.00	
200 mm	EUR 732.00		

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI007930**

Diameter ..... **10mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

**Size**

**Web Code**  
 767-723-911  
 965-493-289  
 686-650-782  
 831-348-743

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 165.00	EUR 199.00	EUR 252.00	EUR 324.00
200 mm	EUR 181.00	EUR 222.00	EUR 289.00	
500 mm	EUR 214.00	EUR 269.00		
1000 mm	EUR 251.00			

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.



## Titanium

Ti



### Rod

**TI007937**

Diameter ..... **16mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

Size Web Code	Length	Quantity		
		1pc	2pcs	5pcs
390-400-846	100 mm	EUR 185.00	EUR 226.00	EUR 293.00
800-104-921	200 mm	EUR 207.00	EUR 258.00	EUR 397.00
013-124-908	500 mm	EUR 251.00	EUR 374.00	
640-617-607	1000 mm	EUR 355.00		

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI007938**

Diameter ..... **16mm**  
 Temper ..... **As drawn**

High Purity ..... **99.99+%**

Size Web Code	Length	Quantity	
		1pc	2pcs
501-713-189	25 mm	EUR 324.00	EUR 422.00
480-926-876	50 mm	EUR 405.00	EUR 683.00
877-169-973	100 mm	EUR 666.00	

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI007940**

Diameter ..... **20mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

Size Web Code	Length	Quantity		
		1pc	2pcs	5pcs
650-810-444	50 mm	EUR 141.00	EUR 168.00	POA
354-463-169	100 mm	EUR 157.00	EUR 189.00	POA
307-897-152	200 mm	EUR 179.00	POA	
487-146-660	500 mm	POA		
077-206-463	1000 mm	POA		

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI007941**

Diameter ..... **20mm**  
 Temper ..... **As drawn**

High Purity ..... **99.99+%**

Size Web Code	Length	Quantity	
		1pc	2pcs
417-393-521	25 mm	EUR 339.00	EUR 456.00
049-096-533	50 mm	EUR 439.00	EUR 766.00
097-147-193	100 mm	EUR 749.00	

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI007945**

Diameter ..... **25mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

Size Web Code	Length	Quantity		
		1pc	2pcs	5pcs
667-385-278	50 mm	EUR 151.00	EUR 181.00	POA
570-710-445	100 mm	EUR 170.00	EUR 216.00	POA
249-765-258	200 mm	EUR 206.00	POA	
390-711-673	500 mm	POA		
894-550-342	1000 mm	POA		

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI007946**

Diameter ..... **25mm**  
 Temper ..... **As drawn**

High Purity ..... **99.99+%**

Size Web Code	Length	Quantity	
		1pc	2pcs
373-425-482	25 mm	EUR 383.00	EUR 601.00
946-302-718	50 mm	EUR 584.00	

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI007947**

Diameter ..... **30mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

Size Web Code	Length	Quantity		
		1pc	2pcs	5pcs
483-440-583	50 mm	EUR 160.00	EUR 194.00	POA
330-430-696	100 mm	EUR 183.00	EUR 260.00	POA
609-494-572	200 mm	EUR 249.00	POA	
897-523-046	500 mm	POA		
210-713-265	1000 mm	POA		

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

Metal – Titanium

## Titanium

### Ti



## Rod

**TI007948**

Diameter ..... **40mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

### Size

**Web Code**  
 727-887-547  
 177-997-770  
 430-360-174  
 670-459-346  
 336-998-532

Length	Quantity		
	1pc	2pcs	5pcs
50 mm	EUR 179.00	EUR 243.00	POA
100 mm	EUR 233.00	POA	
200 mm	POA		
500 mm	POA		
1000 mm	POA		

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI007950**

Diameter ..... **50mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

### Size

**Web Code**  
 368-631-967  
 893-334-663  
 666-829-969  
 353-747-982  
 218-490-266  
 642-046-246

Length	Quantity		
	1pc	2pcs	5pcs
25 mm	EUR 177.00	EUR 224.00	POA
50 mm	EUR 212.00	POA	
100 mm	POA		
200 mm	POA		
500 mm	POA		
1000 mm	POA		

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI007955**

Diameter ..... **50mm**

High Purity ..... **99.99+%**

### Size

**Web Code**  
 311-277-120  
 909-639-289

Length	1pc
	10 mm
25 mm	EUR 739.00

Typical Analysis : Al <3, Ca <2, Cr <6, Cu <10, Fe <10, Mg <1, Mn <1, Nb <5, Ni <3, S <1, Si <5, V <3, Zn <1, Zr <3.

**TI007975**

Diameter ..... **75mm**  
 Temper ..... **Annealed**

Purity ..... **99.6+%**

### Size

**Web Code**  
 045-504-645  
 010-155-025  
 289-420-615  
 957-338-168  
 423-492-152  
 299-047-015

Length	Quantity	
	1pc	2pcs
25 mm	EUR 207.00	POA
50 mm	POA	
100 mm	POA	
200 mm	POA	
500 mm	POA	
1000 mm	POA	

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.



## Bar

**TI008003**

Side Length ..... **10mm**  
 Purity ..... **99.6+%**

Side Length (of longer side) **12mm**

### Size

**Web Code**  
 024-847-271  
 871-756-044  
 655-568-722  
 289-180-194

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 83.00	EUR 100.00	EUR 138.00	EUR 230.00
200 mm	EUR 98.50	EUR 123.00	EUR 227.00	
500 mm	EUR 135.00	EUR 226.00		
1000 mm	EUR 224.00	EUR 405.00		

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI008010**

Side Length ..... **50mm**  
 Purity ..... **99.6+%**

Side Length (of longer side) **50mm**

### Size

**Web Code**  
 943-781-460

Length	1pc
	100 mm

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.



## Tube

**TI007050**

Outside Diameter ..... **0.51mm**  
 Inside Diameter ..... **0.35mm**  
 Temper ..... **Annealed**

Wall Thickness ..... **0.08mm**  
 Purity ..... **99.6+%**

### Size

**Web Code**  
 139-002-057  
 375-258-559  
 907-315-054

Length	Quantity		
	1pc	2pcs	5pcs
100 mm	EUR 325.00	EUR 403.00	EUR 712.00
200 mm	EUR 391.00	EUR 600.00	
500 mm	EUR 694.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**Titanium**

**Ti**



**Tube**

**TI007054**

Outside Diameter . . . . . **0.635mm**  
 Inside Diameter . . . . . **0.331mm**

Wall Thickness . . . . . **0.152mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**  
 809-010-195  
 300-931-847  
 100-857-780  
 210-542-591

Length	Quantity		
	1pc	2pcs	5pcs
100 mm	EUR 308.00	EUR 379.00	EUR 606.00
200 mm	EUR 367.00	EUR 515.00	EUR 1030.00
500 mm	EUR 588.00	EUR 1023.00	
1000 mm	EUR 1011.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007060**

Outside Diameter . . . . . **0.81mm**  
 Inside Diameter . . . . . **0.61mm**  
 Temper . . . . . **As drawn**

Wall Thickness . . . . . **0.1mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**  
 212-007-468  
 084-327-266  
 627-380-069  
 600-924-567

Length	Quantity		
	1pc	2pcs	5pcs
100 mm	EUR 308.00	EUR 379.00	EUR 606.00
200 mm	EUR 367.00	EUR 515.00	EUR 1030.00
500 mm	EUR 588.00	EUR 1023.00	
1000 mm	EUR 1011.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007068**

Outside Diameter . . . . . **1.00mm**  
 Inside Diameter . . . . . **0.36mm**  
 Temper . . . . . **Hard**

Wall Thickness . . . . . **0.32mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**  
 307-126-652

Length	Quantity			
	10pcs	20pcs	50pcs	100pcs
20 mm	EUR 296.00	EUR 423.00	EUR 807.00	EUR 1448.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007070**

Outside Diameter . . . . . **1.05mm**  
 Inside Diameter . . . . . **0.75mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **0.15mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**  
 414-378-307  
 797-294-422  
 661-800-346  
 328-012-513

Length	Quantity		
	1pc	2pcs	5pcs
100 mm	EUR 308.00	EUR 379.00	EUR 606.00
200 mm	EUR 367.00	EUR 515.00	EUR 1030.00
500 mm	EUR 588.00	EUR 1023.00	
1000 mm	EUR 1011.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007075**

Outside Diameter . . . . . **1.5mm**  
 Inside Diameter . . . . . **1.15mm**  
 Temper . . . . . **Hard**

Wall Thickness . . . . . **0.175mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**  
 772-144-387

Length	Quantity		
	1pc	2pcs	5pcs
230 mm	EUR 311.00	EUR 388.00	EUR 532.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007085**

Outside Diameter . . . . . **1.6mm**  
 Inside Diameter . . . . . **0.6mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **0.5mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**  
 550-158-262  
 054-267-481  
 934-343-170  
 272-244-568

Length	Quantity		
	1pc	2pcs	5pcs
100 mm	EUR 198.00	EUR 246.00	EUR 410.00
200 mm	EUR 237.00	EUR 348.00	EUR 702.00
500 mm	EUR 397.00	EUR 699.00	
1000 mm	EUR 690.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007080**

Outside Diameter . . . . . **1.6mm**  
 Inside Diameter . . . . . **1.2mm**  
 Temper . . . . . **Hard**

Wall Thickness . . . . . **0.2mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**  
 656-944-268  
 492-647-132  
 863-991-063  
 054-380-668

Length	Quantity		
	1pc	2pcs	5pcs
100 mm	EUR 198.00	EUR 246.00	EUR 410.00
200 mm	EUR 237.00	EUR 348.00	EUR 702.00
500 mm	EUR 397.00	EUR 699.00	
1000 mm	EUR 690.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**Metal – Titanium**

**Titanium**

**Ti**



**Tube**

**TI007101**

Outside Diameter . . . . . **2.03mm**  
 Inside Diameter . . . . . **1.55mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **0.24mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**

139-154-472  
 322-700-154  
 295-841-870  
 686-703-660

Length	Quantity		
	1pc	2pcs	5pcs
100 mm	EUR 176.00	EUR 214.00	EUR 284.00
200 mm	EUR 205.00	EUR 255.00	EUR 450.00
500 mm	EUR 271.00	EUR 446.00	
1220 mm	EUR 510.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007100**

Outside Diameter . . . . . **2.03mm**  
 Inside Diameter . . . . . **1.63mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **0.2mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**

725-038-271  
 629-775-405  
 721-931-142  
 173-953-754

Length	Quantity		
	1pc	2pcs	5pcs
100 mm	EUR 186.00	EUR 228.00	EUR 337.00
200 mm	EUR 219.00	EUR 290.00	EUR 556.00
500 mm	EUR 324.00	EUR 553.00	
1000 mm	EUR 544.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007126**

Outside Diameter . . . . . **2.65mm**  
 Inside Diameter . . . . . **2.45mm**  
 Temper . . . . . **Hard**

Wall Thickness . . . . . **0.1mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**

117-672-939

Length	Quantity			
	10pcs	25pcs	50pcs	100pcs
4 mm	EUR 173.00	EUR 218.00	EUR 279.00	EUR 389.00

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007210**

Outside Diameter . . . . . **3.0mm**  
 Inside Diameter . . . . . **1.5mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **0.75mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**

832-381-277  
 047-658-559  
 957-319-600  
 664-952-794

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 164.00	EUR 197.00	EUR 264.00	EUR 415.00
200 mm	EUR 188.00	EUR 231.00	EUR 410.00	
500 mm	EUR 251.00	EUR 406.00		
1000 mm	EUR 397.00			

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007250**

Outside Diameter . . . . . **4.25mm**  
 Inside Diameter . . . . . **3.75mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **0.25mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**

119-099-329  
 887-420-548  
 927-568-528  
 946-070-401

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 158.00	EUR 190.00	EUR 237.00	EUR 314.00
200 mm	EUR 181.00	EUR 221.00	EUR 308.00	EUR 504.00
500 mm	EUR 224.00	EUR 304.00		
1000 mm	EUR 295.00	EUR 494.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007295**

Outside Diameter . . . . . **6.1mm**  
 Inside Diameter . . . . . **5.1mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **0.5mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**

481-675-901  
 356-826-007  
 504-026-630  
 206-109-979

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 180.00	EUR 219.00	EUR 297.00	EUR 478.00
200 mm	EUR 209.00	EUR 260.00	EUR 471.00	EUR 826.00
500 mm	EUR 283.00	EUR 468.00		
1000 mm	EUR 457.00	EUR 815.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007350**

Outside Diameter . . . . . **6.35mm**  
 Inside Diameter . . . . . **4.57mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **0.89mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**

739-151-280  
 393-908-800  
 238-601-445  
 825-177-227

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 175.00	EUR 213.00	EUR 271.00	EUR 422.00
200 mm	EUR 202.00	EUR 250.00	EUR 415.00	
500 mm	EUR 256.00	EUR 411.00		
1000 mm	EUR 400.00			

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**Metal – Titanium**

**Titanium**

**Ti**



**Tube**

**TI007300**

Outside Diameter . . . . . **6.35mm**  
 Inside Diameter . . . . . **5.53mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **0.41mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**

258-804-851  
 350-610-838  
 826-351-383  
 293-913-295

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 180.00	EUR 219.00	EUR 297.00	EUR 478.00
200 mm	EUR 209.00	EUR 260.00	EUR 471.00	
500 mm	EUR 283.00	EUR 468.00		
1000 mm	EUR 457.00			

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007370**

Outside Diameter . . . . . **7.0mm**  
 Inside Diameter . . . . . **5mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **1.0mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**

223-418-007  
 106-208-414  
 648-580-126  
 036-921-236

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 175.00	EUR 213.00	EUR 271.00	EUR 422.00
200 mm	EUR 202.00	EUR 250.00	EUR 415.00	
500 mm	EUR 256.00	EUR 411.00		
1000 mm	EUR 400.00			

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007401**

Outside Diameter . . . . . **9.5mm**  
 Inside Diameter . . . . . **8.2mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **0.65mm**  
 Purity . . . . . **99.6+%**  
 Condition . . . . . **Lightly Oxidised surface**

**Size**

**Web Code**

060-031-005  
 635-270-033  
 520-055-962  
 854-966-646

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 147.00	EUR 179.00	EUR 210.00	EUR 248.00
200 mm	EUR 162.00	EUR 199.00	EUR 242.00	EUR 339.00
500 mm	EUR 190.00	EUR 239.00	EUR 384.00	
1000 mm	EUR 221.00	EUR 330.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007461**

Outside Diameter . . . . . **10mm**  
 Inside Diameter . . . . . **8mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **1.0mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**

026-656-727  
 886-397-128  
 640-012-142  
 429-596-619

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 164.00	EUR 197.00	EUR 246.00	EUR 342.00
200 mm	EUR 187.00	EUR 229.00	EUR 335.00	
500 mm	EUR 232.00	EUR 332.00		
1000 mm	EUR 322.00			

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007460**

Outside Diameter . . . . . **10.3mm**  
 Inside Diameter . . . . . **8.7mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **0.8mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**

284-117-036  
 514-633-570  
 329-199-253  
 149-909-352

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 164.00	EUR 197.00	EUR 246.00	EUR 342.00
200 mm	EUR 187.00	EUR 229.00	EUR 335.00	
500 mm	EUR 232.00	EUR 332.00		
1000 mm	EUR 322.00			

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007500**

Outside Diameter . . . . . **12.7mm**  
 Inside Diameter . . . . . **10.9mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **0.9mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**

738-669-986  
 333-737-954  
 717-241-244  
 655-150-249

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 167.00	EUR 201.00	EUR 252.00	EUR 363.00
200 mm	EUR 191.00	EUR 234.00	EUR 356.00	EUR 596.00
500 mm	EUR 238.00	EUR 353.00		
1000 mm	EUR 343.00	EUR 586.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

**TI007550**

Outside Diameter . . . . . **25.4mm**  
 Inside Diameter . . . . . **23.62mm**  
 Temper . . . . . **Annealed**

Wall Thickness . . . . . **0.89mm**  
 Purity . . . . . **99.6+%**

**Size**

**Web Code**

893-777-018  
 722-128-135  
 266-023-212  
 252-905-815

Length	Quantity			
	1pc	2pcs	5pcs	10pcs
100 mm	EUR 177.00	EUR 213.00	EUR 265.00	EUR 383.00
200 mm	EUR 201.00	EUR 247.00	EUR 375.00	EUR 623.00
500 mm	EUR 248.00	EUR 371.00		
1000 mm	EUR 359.00	EUR 612.00		

Typical Analysis : Al 300, Ca 20, Cr 50, Cu 5, Fe 1500, Mn 100, Ni 50, Si 300, Sn 200, C 300, H 60, N 150, O 2000.

## Titanium

Ti



### Powder

**TI006030**

Max. Particle size ..... **45micron**  
 Condition..... **Grade 1**  
 Condition..... **Spherical**

Purity..... **99.5%**  
 Condition..... **Gas atomized**



**Web Code**  
 368-465-570

Quantity		1 Pot
Weight		
100 g		EUR 378.00

Typical Analysis : C < 100, Chlorides 1700, Fe 200, N < 100, O 1000.

May be suitable for additive manufacturing research and development purposes.

Hazardous goods, additional shipment charges apply which are dependent on destination. Please check the individual item on our website or contact us for further details.

**TI006021**

Max. Particle size ..... **45micron**  
 Condition..... **Grade 2**  
 Condition..... **Spherical**

Purity..... **99.5%**  
 Condition..... **Gas atomized**



**Web Code**  
 145-365-376  
 540-228-344  
 528-537-880

Quantity		1 Pot
Weight		
50 g		EUR 305.00
100 g		EUR 487.00
200 g		EUR 779.00

Typical Analysis : C < 100, Chlorides 1700, Fe 200, N < 100, O 1000.

May be suitable for additive manufacturing research and development purposes.

Hazardous goods, additional shipment charges apply which are dependent on destination. Please check the individual item on our website or contact us for further details.

**TI006022**

Max. Particle size ..... **75micron**

Purity..... **99.5%**



**Web Code**  
 780-284-214  
 815-389-828  
 563-440-572  
 310-743-087

Quantity		1 Pot
Weight		
50 g		EUR 225.00
100 g		EUR 288.00
200 g		EUR 350.00
500 g		EUR 584.00

Typical Analysis : C < 100, Chlorides 1700, Fe 200, N < 100, O 1000.

Hazardous goods, additional shipment charges apply which are dependent on destination. Please check the individual item on our website or contact us for further details.

**TI006076**

Max. Particle size ..... **106micron**  
 Condition..... **Grade 2**  
 Condition..... **Spherical**

Purity..... **99.5%**  
 Condition..... **Gas atomized**



**Web Code**  
 679-009-014

Quantity		1 Pot
Weight		
50 g		EUR 253.00

Typical Analysis : C < 100, Chlorides 1700, Fe 200, N < 100, O 1000.

May be suitable for additive manufacturing research and development purposes.

Hazardous goods, additional shipment charges apply which are dependent on destination. Please check the individual item on our website or contact us for further details.

**TI006020**

Max. Particle size ..... **150micron**

Purity..... **99.5%**



**Web Code**  
 051-375-012  
 421-878-116  
 201-125-457  
 734-771-099  
 846-380-654

Quantity		1 Pot
Weight		
50 g		EUR 179.00
100 g		EUR 212.00
200 g		EUR 259.00
500 g		EUR 354.00
1000 g		EUR 602.00

Typical Analysis : C < 100, Chlorides 1700, Fe 200, N < 100, O 1000.

Hazardous goods, additional shipment charges apply which are dependent on destination. Please check the individual item on our website or contact us for further details.

Metal – Titanium

## Titanium

Ti



### Lump

**TI006104** Max. Lump size ..... **4mm** Purity..... **99.6+%**

	<b>Quantity</b>	
<b>Web Code</b>	<b>Weight</b>	<b>1 Pot</b>
744-070-240	20 g	EUR 154.00

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

**TI006101** Max. Lump size ..... **4mm** High Purity ..... **99.99+%**  
 Condition..... **Pellets**

	<b>Quantity</b>	
<b>Web Code</b>	<b>Weight</b>	<b>1 Pot</b>
693-862-822	20 g	EUR 216.00
230-788-207	50 g	EUR 344.00
691-854-254	100 g	EUR 582.00

Typical Analysis : Al <3, Ca <2, Cr <2, Cu <1, Fe <10, Mn <1, Nb <5, Ni <3, Si <5, V <3, Zn <1, Zr <3.  
 Nominally 3mm diameter x 3mm length pellets. Please ask for prices for larger quantities.

**TI006102** Max. Lump size ..... **6mm** High Purity ..... **99.99+%**  
 Condition..... **Pellets**

	<b>Quantity</b>	
<b>Web Code</b>	<b>Weight</b>	<b>1 Pot</b>
466-661-763	20 g	EUR 207.00
036-450-754	50 g	EUR 306.00
259-017-715	100 g	EUR 506.00

Typical Analysis : Al <3, Ca <2, Cr <2, Cu <1, Fe <10, Mn <1, Nb <5, Ni <3, Si <5, V <3, Zn <1, Zr <3.  
 Nominally 4.7mm diameter x 4.7mm length pellets. Please ask for prices for larger quantities.

**TI006111** Max. Lump size ..... **6mm** High Purity ..... **99.999%**  
 Condition..... **Pellets**

	<b>Quantity</b>	
<b>Web Code</b>	<b>Weight</b>	<b>1 Pot</b>
797-622-142	20 g	EUR 255.00
421-821-863	50 g	EUR 433.00
217-107-759	100 g	EUR 745.00

Typical Analysis : Al 2, Cu 1, Fe 3, Si 1, Sn 1  
 Nominally 4.7mm diameter x 4.7mm length pellets. Please ask for prices for larger quantities.

**TI006100** Max. Lump size ..... **10mm** High Purity ..... **99.99+%**  
 Condition..... **Pellets**

	<b>Quantity</b>	
<b>Web Code</b>	<b>Weight</b>	<b>1 Pot</b>
128-330-856	20 g	EUR 183.00
041-351-482	50 g	EUR 263.00
168-929-050	100 g	EUR 419.00

Typical Analysis : Al <3, Ca <2, Cr <2, Cu <1, Fe <10, Mn <1, Nb <5, Ni <3, Si <5, V <3, Zn <1, Zr <3.  
 Pellets - nominal size 9.5mm diameter x 9.5mm length Please ask for prices for larger quantities.

**TI006110** Max. Lump size ..... **10mm** High Purity ..... **99.999%**  
 Condition..... **Pellets**

	<b>Quantity</b>	
<b>Web Code</b>	<b>Weight</b>	<b>1 Pot</b>
609-177-118	20 g	EUR 248.00
147-144-895	50 g	EUR 402.00
393-112-098	100 g	EUR 683.00

Typical Analysis : Al 2, Cu 1, Fe 3, Si 1, Sn 1  
 Pellets - nominal size 9.5mm diameter x 9.5mm length Please ask for prices for larger quantities.



### Sphere

**TI006830** Diameter..... **3mm** Purity..... **99.6+%**

	<b>Quantity</b>	
<b>Web Code</b>	<b>Spheres</b>	<b>1 Pot</b>
220-739-924	50 pcs	EUR 175.00
757-094-570	100 pcs	EUR 291.00
347-398-370	200 pcs	EUR 514.00

Typical Analysis : Al 500, Co 2, Cr 500, Cu 200, Fe 300, Mg 20, Mn 500, Ni 500, Si 200, Sn 200, Ta 10, V 500.

Metal – Titanium

**Titanium**

**Ti**



**Single Crystal**

<b>TI002122</b>	Oriented ..... (0001) Condition ..... Unpolished	Thickness ..... 1mm
<b>Web Code</b> 366-248-096	<b>Quantity</b> <b>Size</b> 3x5	<b>1pc</b> EUR POA
<b>TI002120</b>	Oriented ..... (0001) Diameter ..... 5mm	Thickness ..... 1mm Condition ..... Unpolished
<b>Web Code</b> 769-085-275	<b>Quantity</b>	<b>1pc</b> EUR POA
<b>TI002121</b>	Oriented ..... (0001) Diameter ..... 8mm	Thickness ..... 1mm Condition ..... Unpolished
<b>Web Code</b> 690-308-068	<b>Quantity</b>	<b>1pc</b> EUR POA

**Metal – Titanium**



## INDEX

### B

Bar, Titanium 42

### F

Foil, Titanium 21

### L

Lump, Titanium 47

### M

Mesh, Titanium 36

Microfoil, Titanium 20

### P

Powder, Titanium 46

### R

Rod, Titanium 39

### S

Sheet, Titanium 34

Single Crystal, Titanium 48

Sphere, Titanium 47

Sputtering Target, Titanium 35

### T

Titanium (Ti) 20

Tube, Titanium 42

### W

Wire .. Titanium 36