ARGOR-HERAEUS SA
SWITZERLAND

LOCATION
Argor-Heraeus SA, a leading international gold refiner and bar manufacturer, has its headquarters in Mendrisio, about 17 km from Lugano in south eastern Switzerland.

Gold refining and the manufacture of bars and other precious metal products take place in Mendrisio.

OWNERSHIP
Argor-Heraeus SA is a private company. It is owned by Heraeus Holding GmbH, Commerzbank International SA, the Austrian Mint and Argor-Heraeus management.

ACCREDITATION
1961 London Bullion Market Association (LBMA)
1982 Tokyo Commodity Exchange (TOCOM)
2005 Dubai Multi Commodities Centre (DMCC)

Central Office of Precious Metal Control, Berne
Swiss Association of Manufacturers and Traders in Precious Metals

In 2004, the London Bullion Market Association (LBMA) appointed Argor-Heraeus SA as one of five Referees to the LBMA Good Delivery system.

Argor-Heraeus SA also manufactures London Good Delivery silver bars (since 1992), as well as London Good Delivery platinum and palladium bars.

CERTIFICATION
ISO 9001: 2011 – Quality Management System
ISO 17025: Accreditation of Laboratory
AML Certified Financial intermediary supervised by FINMA
LBMA Responsible Gold Guidance Audit

BACKGROUND
The company was founded as Argor SA in Chiasso in 1951. In 1960, the Union Bank of Switzerland (UBS) obtained an 80% holding, acquiring full ownership in 1973.

In 1986, Argor-Heraeus SA was established as a joint-venture between UBS and Heraeus Holding GmbH.

In 1999, when UBS withdrew, Heraeus and Argor-Heraeus management acquired the company.

In the same year, Commerzbank International SA became a shareholder, alongside Heraeus and management.

In 2002, the Austrian Mint also became a shareholder, alongside Heraeus, Commerzbank and management.
Argor-Heraeus established its large refinery and manufacturing plant in Mendrisio in 1988. In 1998, its manufacturing plant was expanded. In 2004, it opened its first Representative Office for Latin America in Santiago de Chile (Chile), and constituted its German affiliate, Argor-Heraeus Deutschland.

In 2005, after a decade of research, the company established, together with Aljbatech (Russia), Argor-Aljba – a joint-venture that focuses on DLC and hard coating.

In 2006, Argor-Heraeus constituted its second affiliate in Italy, Argor-Heraeus Italia.

In 2012, Argor-Heraeus completed the construction of a new ancillary plant that doubled the company’s production area.

In the same year, as part of its commitment to sustainability, it installed a solar panel and electricity generation system – one of the largest in the region.

Apart from gold, the company refines silver, platinum and palladium, producing bars and other products for the precious metals industry.

Number of employees: 280 (includes Switzerland, Germany, Italy and Latin America).

GOLD SERVICES
Argor-Heraeus SA focuses on:

1. Gold refining and the recycling of scrap
2. Gold semi-finished products for the watch & jewellery industries
3. Gold medals & coins
4. Gold bars
5. Precious metals services and logistics

GOLD REFINING AND THE RECYCLING OF SCRAP
The company accepts gold-bearing materials (mine doré and scrap) for refining to specified purities up to 999.9.

Gold refining methods include wet chemical processes and electrolysis.

Annual gold refining capacity is recorded at approximately 400 tonnes fine gold.

GOLD BARS
A standard range of 9 cast bars and 11 minted bars, alongside 8 minted kinebars.

Cast: 400 oz, 5000 g, 3000 g, 1000 g, 500 g, 250 g, 100 g, 50 g, 10 tola.
Minted: 100 g, 50 g, 20 g, 10 g, 5 g, 2.5 g, 2 g, 1 g, 1 oz, ½ oz, ¼ oz.
Kinebars®: 100 g, 50 g, 20 g, 10 g, 5 g, 2 g, 1 g, 1 oz.

The company also manufactures an extensive range of customised cast and minted bars in partnership with its major shareholders: Austrian Mint, Commerzbank and Heraeus.

It is renowned for its manufacture of customized bars for banks around the world, notably in Europe, CIS and Middle East.

The company has its own in-house design workshop and manufactures its own master tools and dies.
## TECHNICAL DESCRIPTION

<table>
<thead>
<tr>
<th>Weight</th>
<th>Type</th>
<th>Fineness</th>
<th>Indicative Dimensions</th>
<th>Issued with Current Stamp</th>
<th>Issued in Current Shape</th>
<th>Serial Number System</th>
<th>System Introduced</th>
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<tbody>
<tr>
<td>400 oz</td>
<td>Cast</td>
<td>995+, 999.9</td>
<td>250.0 x 80.5 x 40.0</td>
<td>1986</td>
<td>1952</td>
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<td>1952</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>225.0 x 55.0 (base)</td>
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<td>5000 g</td>
<td>Cast</td>
<td>995, 999.9</td>
<td>227 x 55 x 22</td>
<td>2005</td>
<td>2005</td>
<td>Letter Plus 5 numbers</td>
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<td>3000 g</td>
<td>Cast</td>
<td>995, 999.9</td>
<td>137 x 55 x 22</td>
<td>2008</td>
<td>2008</td>
<td>Letter Plus 5 numbers</td>
<td>2008</td>
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<td>116.5 x 51.0 x 9.5</td>
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<td>1952</td>
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<td>1952</td>
<td>Letter Plus 5 numbers</td>
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<td>Cast</td>
<td>995, 999.9</td>
<td>50 x 30.5 x 9</td>
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<td>100 g</td>
<td>Cast</td>
<td>995, 999.9</td>
<td>45 x 24 x 5.5</td>
<td>2002</td>
<td>2002</td>
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<td>1974</td>
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<td>Cast</td>
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<td>30.4 x 20.6 x 5.2</td>
<td>2002</td>
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<td>2014</td>
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</tr>
<tr>
<td>100 g</td>
<td>Minted</td>
<td>999.9</td>
<td>49.7 x 28.5 x 3.9</td>
<td>1986</td>
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<tr>
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<td>Minted</td>
<td>999.9</td>
<td>49.7 x 28.5 x 2.0</td>
<td>1986</td>
<td>1952</td>
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<tr>
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<td>40.4 x 23.3 x 1.3</td>
<td>1986</td>
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<tr>
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<td>Minted</td>
<td>999.9</td>
<td>31.5 x 18.5 x 1.1</td>
<td>1986</td>
<td>1952</td>
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<td>1986</td>
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<tr>
<td>5 g</td>
<td>Minted</td>
<td>999.9</td>
<td>23.0 x 14.0 x 1.0</td>
<td>1986</td>
<td>1952</td>
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<td>1986</td>
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<tr>
<td>2 g</td>
<td>Minted</td>
<td>999.9</td>
<td>19.0 x 11.5 x 0.6</td>
<td>1986</td>
<td>1980</td>
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<td>1 g</td>
<td>Minted</td>
<td>999.9</td>
<td>15.0 x 8.9 x 0.5</td>
<td>1986</td>
<td>1980</td>
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<td>10 x 10 x 0.7</td>
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<td>40.4 x 23.3 x 1.8</td>
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<td>5 tael</td>
<td>Minted</td>
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<td>23.0 x 14.0 x 1.3</td>
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<td>65.1 x 30.1 x 5.3</td>
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<td>1980</td>
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<td>31.5 x 18.5 x 1.1</td>
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<td>23.0 x 14.0 x 1.0</td>
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<td>40.4 x 23.3 x 1.8</td>
<td>1994</td>
<td>1994</td>
<td>Maximum 6 numbers</td>
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</tbody>
</table>

Source: Argor-Heraeus  NB: All bars with the exception of 400 oz bars are issued with a numbered certificate. All kinebars® are sealed in PET with a certificate. * The 1 g bars for inclusion in Multicards are square in shape.

## HISTORY OF GOLD BAR MANUFACTURE

In 1952, Argor SA launched 5 cast bars: 400 oz, 500 g, 250 g, 200 g and 100 g.

In the same year, 6 minted bars were issued: 100 g, 50 g, 25 g, 20 g, 10 g and 5 g.

In 1979, 1 oz, ½ oz and ¼ oz minted bars were introduced, followed by 2.5 g, 2 g and 1 g bars in 1980.

Argor-Heraeus has manufactured cast gold bars since 1952.
10 tola bars for the Middle East and India were first made in 1960, and 5 and 1 tael bars for Hong Kong in 1980.

The company also manufactures two larger cast bars: 5000 g (since 2005) and 3000 g (since 2008); as well as 50 g cast bars (since 2014).

In 2013, MultiCards, containing 5 or 10 x 1 g square minted bars were launched.

Although Argor-Heraeus has issued small bars branded with its current stamps since December 1986, its branded bars have only been widely available internationally since 1999.

The company is generally acknowledged as the first LBMA-accredited refiner to have manufactured a range of minted bars, in 1952.

It is also renowned as the only refiner to manufacture kinebars®. In 1994, it issued its standard range: 20 g, 10 g, 5 g, 2 g, 1 g and 1 oz. In 2012, two further kinebar® were issued: 100 g and 50 g.

The same serial numbering system has been applied to 400 oz bars since 1952. The system for all other bars has remained the same since their launch, with two exceptions. In 1973, the system for 1000 g and 500 g bars was changed to a “letter plus 5 numbers”. Between 1952 and 1972, a maximum of 6 numbers had been applied.

Between 1952 and 1986, bars were manufactured with the stamps of Argor SA. However, between 1980 and 1998, when UBS was closely associated with the company, most small cast and minted bars produced were branded with the name of UBS.

KINEBAR®
Argor-Heraeus is the only refiner worldwide to apply a KINEGRAM® as a decorative and security device to the reverse sides of selected minted bars. They are known as kinebars®.

KINEGRAM® technology applied to precious metals consists in the micro-stamping of a two-dimensional computer-generated image. The image of the KINEGRAM® is composed of invisibly small elementary areas of micro profiles which diffract illuminating light. The areas are used to compose lines and graphical elements. The overall image of the KINEGRAM® is generated by varying the angles of diffraction and the diffraction intensities.

TRADE COMMUNICATION
Enquiries by industrial customers, and dealers for large quantities of gold bars, should be directed to the company’s headquarters.

Argor-Heraeus SA, Via Moree 14, CH-6850 Mendrisio, Switzerland
Tel: +41-91-640 5353
Fax: +41-91-646 8082
Email: info@argor.com
Website: www.argor.com

The company deals only with trade customers. It does not deal with private investors.
EXAMPLES OF CAST BARS

Argor-Heraeus has manufactured London Good Delivery 400 oz bars since 1961.

In 2004, the London Bullion Market Association (LBMA) appointed Argor-Heraeus SA as one of five Referees to the London Good Delivery system.
Argor-Heraeus introduced new tamper-proof packaging for minted bars in 2011.

Argor-Heraeus has an in-house design workshop and manufactures its own master tools and dies.

Illustrates the standard Argor-Heraeus design on the reverse side of a kinebar®.
MultiCards, containing 5 or 10 x 1 g square minted bars, were launched in 2013.

They assist those investors who prefer to own part of their gold holding in small 1 g units, as well as those who wish to use them as gold investment gifts for family and friends.
Argor-Heraeus manufactures an extensive range of semi-finished products for the watch industry, as well as for the jewellery, electronics and decorative industries in Switzerland and internationally.

Argor-Heraeus also manufactures London Good Delivery silver, platinum and palladium bars, alongside a range of smaller bars.