

UMICORE GROUP

EUROPE AND BRAZIL

EUROPE

LOCATION

Umicore SA, one of the world's largest materials technology groups, has its international headquarters in Brussels, Belgium.

Umicore Precious Metals Refining has its headquarters in Hoboken, about 15 km from Antwerp.

Umicore Precious Metals Management, based in Germany at Hanau-Wolfgang, about 30 km from Frankfurt, is – besides other tasks – also responsible for the worldwide sale of Umicore bars made at the company's refineries in Europe.

Gold refining and the manufacture of bars take place in Europe in Hoboken (Belgium), Amsterdam (Netherlands), Pforzheim (Germany) and Vienna (Austria).

The refineries in Belgium, Netherlands and Germany are accredited to the London Bullion Market Association.

OWNERSHIP

N.V. Umicore S.A. is a public company. Historically, Belgian institutional and retail shareholders have accounted for a large portion of the free float ownership. However, in recent years significant efforts have been made to broaden Umicore's shareholder base.

Although Belgian financial institutions remain important investors in the company, it is estimated that Umicore now has an equally strong investor base in the UK and a rapidly growing one in North America. Continental European investors outside Belgium have also grown in significance in recent years.

ACCREDITATION

Umicore SA – Hoboken Refinery, Belgium

1930* London Bullion Market Association
1974 New York Mercantile Exchange (COMEX Division)

* Estimated. Société Générale Métallurgique de Hoboken is recorded on the earliest known list of accredited "Melters" issued by the London Gold Market in 1934.

Schöne Edelmetaalbedrijven NV – Amsterdam, Netherlands

1934* London Bullion Market Association
1974 New York Mercantile Exchange (COMEX Division)

* Estimated. NV Schöne's Essayeursinrichting is recorded on the earliest known list of accredited "Melters" issued by the London Gold Market in 1934.

Allgemeine Gold- und Silberscheideanstalt AG – Pforzheim, Germany

2008 London Bullion Market Association



Umicore SA's large metal manufacturing complex in Hoboken.



The company has produced London Good Delivery 400 oz bars in Hoboken since 1930.



Kilobars are manufactured to a fineness of 999.9 for the international market.



BACKGROUND

Umicore SA - Belgium

Although Umicore SA can trace its origins back to 1805, a small lead desilvering plant, founded in 1887 under the name Usine de Désargentation, led to one of Europe's major metal manufacturing complexes being established on the banks of the Schelde river at Hoboken.

In 1919, Compagnie Industrielle Union, founded in 1908 with manufacturing installations at Olen, acquired the Hoboken plants, renaming the company as Société Générale Métallurgique de Hoboken.

In 1964, the name of the company was changed to Métallurgique Hoboken, and again in 1970 with the addition of zinc manufacturing works at Overpelt, to Métallurgie Hoboken-Overpelt.

In 1989, a major restructuring took place. SA Acec-Minière NV was established, which included combining the Hoboken and Olen subsidiaries to form the MHO Division.

During the 1990s, the company increasingly focused on precious metals, high-margin zinc products and advanced materials based mainly on cobalt and germanium. To symbolize this new direction, it changed its name to Umicore SA in 2001.

In 2003, Umicore added a new dimension to the company by acquiring the Precious Metal Group (PMG) of the OM Group Inc (headquartered in Ohio, USA). PMG had previously been the precious metals unit of Degussa AG, which OMG had acquired in 2001.

Apart from gold, the company also refines platinum, palladium, rhodium, iridium, ruthenium and silver, producing bars and many products for the platinum group metal, gold and silver industries.

Umicore is renowned as one of the world's few active gold refiners whose 400 oz bars, manufactured at Hoboken, have been accepted as London Good Delivery for more than 75 years.

Number of employees: 17,000 (worldwide)

Schöne Edelmetaalbedrijven NV – Netherlands

The company was founded in Amsterdam by Gerrit Schöne, an assayer for Amsterdam's "Wisselbank" (the municipal exchange bank), in 1739. Incorporated in 1911 as Schöne's Essayeursinrichting en Handel in Edele Metalen, it was closely associated with the Degussa Group (Germany) from 1933 until 2001. It became part of the Umicore Group in 2003.

Allgemeine Gold- und Silberscheideanstalt AG – Germany

The company was founded in Pforzheim, the centre of the jewellery and watchmaking industry in Germany, in 1891. Apart from Schöne Edelmetaal BV (Netherlands), two other subsidiaries have gold refineries: Österreichische Gold- und Silberscheideanstalt Ges.m.b.H (ÖGUSSA) in Vienna (Austria), and Umicore Precious Metals (Thailand) Ltd in Bangkok. It became part of the Umicore Group in 2003.



Umicore SA has been an international gold refiner for more than 75 years.



London Good Delivery 400 oz bar manufactured by the Umicore Group in Amsterdam (Netherlands).



London Good Delivery 400 oz bar manufactured by the Umicore Group in Pforzheim (Germany).



GOLD SERVICES

The Umicore Group, at its European refineries, focuses on:

- Gold refining and the recycling of scrap
- Gold products for the jewellery industry
- Gold products for the electronics industry
- Gold products for the decorative industry
- Gold products for the dental industry
- Gold for the production of medals and coins
- Gold bars

GOLD REFINING AND RECYCLING OF SCRAP

The Umicore Group, at its European refineries, normally accepts the following gold-bearing materials for refining to specified purities up to 999.9:

- Semi-refined bullion
- Mine doré: predominantly gold
- Mine doré: predominantly silver
- Electrolytic slimes: derived from copper
- Electrolytic slimes: derived from silver
- Precipitated gold slimes
- Loaded carbon
- Old jewellery
- Jewellery manufacturers scrap
- Electronic scrap
- Dental scrap
- Old coins and medals
- Other precious metal containing residues and scrap

Gold refining methods include:

- Pyrometallurgical chlorination (Miller Process)
- Electrolysis
- Wet chemical chlorination
- Wet chemical parting
- Electrolysis
- Solvent Extraction
- Cupellation

Annual gold refining capacity at its European refineries is more than 150 tonnes.



Umicore's gold refining and manufacturing plant in Pforzheim (Germany).



The Pforzheim refinery has refined gold for more than a century.



Gold granules for the jewellery industry.



GOLD BARS

Umicore's refineries in Europe manufacture a standard range of 8 cast and 8 minted bars.

Cast: 400 oz (3), 1000 g (3), 500 g, 250 g
Minted: 100 g, 50 g, 20 g, 10 g, 5 g, 2.5 g, 1 g, 1 oz

The company also manufactures cast and minted bars for external entities.

It can be noted that, while the refineries in Belgium and the Netherlands issue 400 oz bars with a "Umicore" stamp, the company's subsidiary company in Germany, Allgemeine Gold- und Silberscheideanstalt AG, issues 400 oz bars with an "Allgemeine" stamp.



The new range of small cast bars was issued in 2006.

TECHNICAL DESCRIPTION

Weight	Type	Fineness	Shape	Dimensions mm	First Made	Serial Number System	System Introduced
400 oz#	Cast	999.9	Rectangular	215 x 85 x 50 200 x 75 (base)	1930*	1 to 3 or 4 numbers Plus year date	Unknown
400 oz **	Cast	999.9	Rectangular	220 x 78 x 50 189 x 53 (base)	2008	5 numbers Plus year date	2008
400 oz	Cast	999.9	Rectangular	220 x 78 x 50 194 x 55 (base)	Before 1934	1 to 3 or 4 numbers Plus year date	Unknown
1000 g#	Cast	999.9	Rectangular	110 x 55 x 8 106 x 42 (base)	2006	Letter Plus 4 numbers	2006
1000 g	Cast	999.9	Rectangular	110 x 46 x 12 106 x 42 (base)	2006	Letter Plus 4/5 numbers	2006
1000 g	Cast	999.9	Rectangular Brick	90 x 40 x 17 81 x 31 (base)	2006	Letter Plus 4/5 numbers	2006
500 g	Cast	999.9	Rectangular	65 x 35 x 14 57 x 28 (base)	2006	Letter Plus 5 numbers	2006
250 g	Cast	999.9	Rectangular	55 x 25 x 10 50 x 22 (base)	2006	Letter Plus 5 numbers	2006
100 g	Minted	999.9	Rectangular	55 x 31 x 3.2	2006	-	-
50 g	Minted	999.9	Rectangular	46 x 26 x 2.3	2006	-	-
20 g	Minted	999.9	Rectangular	39 x 22 x 1.3	2006	-	-
10 g	Minted	999.9	Rectangular	31 x 18 x 1.0	2006	-	-
5 g	Minted	999.9	Rectangular	24 x 14 x 0.9	2006	-	-
2.5 g	Minted	999.9	Rectangular	24 x 14 x 0.5	2006	-	-
1 g	Minted	999.9	Rectangular	15 x 8.5 x 0.5	2006	-	-
1 oz	Minted	999.9	Rectangular	42 x 24 x 1.7	2006	-	-

Source: Umicore SA * Estimated date. # Manufactured at Umicore's refinery in Hoboken (Belgium). ** Manufactured by Umicore's subsidiary in Pforzheim (Germany): Allgemeine Gold- und Silberscheideanstalt AG. The other bars in the table are manufactured by Umicore's subsidiary in Amsterdam (Netherlands): Schöne Edelmetaalbedrijven NV.

HISTORY OF GOLD BAR MANUFACTURE

Gold bar manufacture in Belgium dates back to 1926 when a gold refinery was established at Hoboken.

400 oz cast bars are known to have been issued as far back as 1934, and may have been made as early as 1926.

The first 1000 g bars are believed to have been issued around 1955.



Over the past 80 years, 5 official stamps are known to have been applied to London Good Delivery 400 oz bars, recording progressively the names "Societe Generale Metallurgique de Hoboken" (1926), "Hoboken Metallurgie" (1964), "Metallurgie Hoboken Overpelt" (1970), "Hoboken 9999" (1990) and "Umicore 9999" (2006).

In acquiring the former precious metals unit of Degussa AG from the OMG Group in 2003, Umicore bars are also closely associated with the history of Degussa bars, which had dominated the German market over the previous 50 years.

Over the period 2003-2005, under the terms of an agreement, Umicore manufactured the Degussa range of cast and minted bars, 400 oz to 1 g, at the former Degussa-owned refinery in Amsterdam, where Degussa bars had previously been manufactured since 1993.

In 2006, to sustain its commitment to trade and private purchasers of Degussa bars, Umicore has manufactured a Umicore-branded range of 4 cast and 8 minted bars, 1000 g and less, in the same dimensions.

Its refinery in Hoboken (Belgium) manufactures London Good Delivery 400 oz bars and one size of 1000 g bar.

Its refinery in Amsterdam (Netherlands), Schöne Edelmetaalbedrijven NV, manufactures London Good Delivery 400 oz bars and the standard range of Umicore cast and minted bars, 1000 g and less.

Its refinery in Pforzheim (Germany), Allgemeine Gold- und Silberscheideanstalt AG, has manufactured London Good Delivery 400 oz bars since 2008.

TRADE COMMUNICATION

Trade enquiries relating to refining and gold bars should be directed to the international email address: preciousmetals@umicore.com.

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OFFICIAL STAMPS



On London Good Delivery 400 oz bars and 1000 g bars manufactured by Umicore SA in Hoboken, since 2006.



On London Good Delivery 400 oz bars, and 1000 g and smaller bars, manufactured by the Umicore Group refinery in Amsterdam, since 2006.



On London Good Delivery 400 oz bars manufactured by the Umicore Group Refinery in Pforzheim, since 2008.



The new range of minted bars was issued in 2006.



EXAMPLES OF GOLD BARS



1000 g



1000 g



1000 g

In Europe, the Umicore Group manufactures three different kilobars for the international market.



100 g



1 oz



UMICORE BRASIL LTDA

LOCATION

Umicore Brasil Ltda, the largest manufacturer of industrial precious metals products in Latin America, has its headquarters in São Paulo.

Gold refining and the manufacture of bars take place at the company's refinery in the suburb of Guarulhos, about 20 km from the centre of São Paulo city.

OWNERSHIP

Umicore Brasil Ltda is a wholly-owned subsidiary of Umicore SA, whose international headquarters are in Brussels, Belgium.

ACCREDITATION

- 2005 London Bullion Market Association (LBMA)
- 2005 Brazilian Mercantile & Futures Exchange (BM&F)
- 2007 New York Mercantile & Futures Exchange (COMEX Division)

The accreditation dates refer to the Umicore brand of gold bars manufactured at the refinery in Guarulhos. The Degussa brand of gold bars, previously manufactured at the refinery, had been accredited to the LBMA (1992), BM&F (1986) and COMEX Division (1989).

BACKGROUND

The company has operated under the name of Umicore Brasil Ltda since 2003, when the Umicore Group acquired it from the OM Group (headquarters in Ohio, USA), which had owned the company since 2001.

Prior to this, although the company had been incorporated under the name of Degussa s.a. in 1979, it had operated in Brazil since 1953, when Bragussa Produtos Metálicos Ltda was established in São Paulo to manufacture liquid gold, glazes and ceramic colours.

The company focuses on precious metals refining and the manufacture of precious metal and chemical products.

The refining and manufacturing complex at Guarulhos (São Paulo), the largest in Latin America, was established in 1979, substantially expanded in 1986 and 1988.

The company has two other large manufacturing plants: at Americana in São Paulo, and in Buenos Aires (Argentina).

Apart from gold, the company refines silver, platinum, palladium and rhodium, manufacturing products for the platinum group metal, gold and silver industries.

Number of employees: 650

GOLD SERVICES

Umicore Brasil Ltda focuses on:

- Gold refining and the recycling of scrap
- Gold products for the jewellery industry
- Gold products for the electronics industry
- Gold products for the decorative industry
- Gold bars



Umicore Brasil Ltda traces its origins in Brazil back to 1953.



The refinery has manufactured London Good Delivery bars since 1992.



Kilobars with the new Umicore stamp were issued in 2006.



GOLD REFINING AND RECYCLING OF SCRAP

Umicore Brasil Ltda normally accepts the following gold-bearing materials for refining to specified purities up to 999.9:

- Semi-refined bullion
- Mine dore: predominantly gold
- Loaded carbon
- Old jewellery
- Jewellery manufacturers scrap
- Electronic scrap
- Dental scrap
- Old coins and medals

Gold refining methods include:

- Wet chemical chlorination
- Wet chemical parting

Annual gold refining capacity is around 40 tonnes.

GOLD BARS

Umicore Brasil Ltda manufactures a standard range of 4 cast bars, and an additional range of 4 cast bars by requisition.

- Cast: 400 oz, 100 oz, 1000 g, 250 g (standard)
- Cast: 100 g, 50 g, 25 g, 10 g (by requisition)

Customised cast bars are also manufactured for external entities.



Pouring molten gold.
The refinery in Guarulhos was established in 1979.

TECHNICAL DESCRIPTION

Weight	Type	Fineness	Shape	Dimensions mm	First Issued*	Serial Number System	System Introduced
400 oz	Cast	999.9	Rectangular	223 x 76 x 50 198 x 50 (base)	2006	From A0001 to ZZ999. Plus year date.	2006
1000 g	Cast	999.9	Rectangular	102 x 64 x 8	2006	From 90001A to 9999ZZ	2006
100 oz	Cast	999.9	Rectangular	120.5 x 63.3 x 29.2	2006	From 4000000 to 4999999	2006
250 g	Cast	999.9	Rectangular	54 x 27 x 11	2006	From 00000A to 00000Z	2006
100 g	Cast	999.9	Rectangular	45.4 x 19.7 x 6.6	2006	From 70000 to 79999	2006
50 g	Cast	999.9	Rectangular	33.3 x 15.8 x 6	2006	From 60000 to 69999	2006
25 g	Cast	999.9	Rectangular	25.2 x 14.4 x 4.7	2006	From 50000 to 59999	2006
10 g	Cast	999.9	Rectangular	10.3 x 17.1 x 4.3	2006	-	2006

Source: Umicore Brasil Ltda * First issued with the official stamp of Umicore.



HISTORY OF GOLD BAR MANUFACTURE

Although Umicore Brasil Ltda launched its new branded range of Umicore bars in 2006, the refinery had manufactured Degussa-branded bars since 1984.

Prior to that, most bars had been issued with the brand name "Vecambras", following the acquisition of Vecambrás Metais Preciosos Ltda in 1972.

The refinery at Guarulhos has manufactured London Good Delivery 400 oz bars since 1984.

Over the period 2003-2005, under the terms of an agreement, Umicore Brasil Ltda continued to manufacture its range of cast bars under the name of Degussa s.a.

Degussa s.a. had pioneered the launch of gold investment bars in 1978. It had also been the first refiner to be accredited to the São Paulo Commodities Exchange (BMSP), subsequently replaced by the BM&F in 1986.

In 2006, to sustain its commitment to trade and private purchasers of Degussa s.a. bars in Brazil, the company has issued its Umicore-branded range of bars in the same dimensions.

TRADE COMMUNICATION

Trade enquiries relating to refining and gold bars should be directed to the international email address: preciousmetals@umicore.com.

Location of Umicore Precious Metals Refining – Brazil

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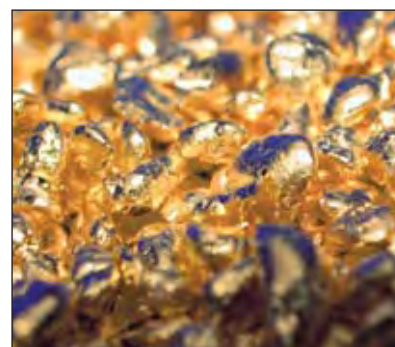
Refinery

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Stamping kilobars.



Gold granules for the jewellery industry.



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