# BAR MANUFACTURERS

There are approximately 100 active gold refiners around the world whose relevant gold bars are accepted as "good delivery" by one or more of the **associations and exchanges** featured in this section.

Section updated to **January 2009**, according to available information.

## ACCREDITATION

A consolidated table in this section records – by region and country of location – the names of active refiners that are accredited to the following:

- London Bullion Market Association (LBMA)
- New York Mercantile Exchange (NYMEX), COMEX Division
- Tokyo Commodity Exchange (TOCOM)
- Dubai Multi Commodities Centre (DMCC)

The names of active refiners accredited to the 5 other exchanges are recorded separately as their lists rely either on the LBMA list or focus on domestic refiners:

- Brazilian Mercantile & Futures Exchange, São Paulo (BM&F)
- Istanbul Gold Exchange (IGE)
- Shanghai Gold Exchange (SGE)
- Shanghai Futures Exchange (SHFE)
- The Chinese Gold & Silver Exchange Society, Hong Kong (CG&SES)

### Importance of LBMA list

As covered in the section on "Good Delivery Bars", the most important list of refiners for the international gold bar market is the one published by the LBMA.

In summary, the LBMA list refers to more than 50 active refiners in 24 countries.

It can be noted that relevant bars of LBMA-accredited refiners are automatically accepted as good delivery by the **Istanbul Gold Exchange**, **Shanghai Gold Exchange** and **Shanghai Futures Exchange**.. In addition, the **Dubai Multi Commodities Exchange** has a separate category for refiners accredited to the LBMA.

### Supplementary brands

In the case of **COMEX** and **TOCOM**, brands issued by some major bullion banks and other entities (and manufactured by approved refiners) are also listed as "good delivery". Notably, the relevant bars of **Credit Suisse** (COMEX and TOCOM) and **UBS** (TOCOM).

In the case of the **Istanbul Gold Exchange**, brands issued by some entities (and manufactured by approved refiners) are also accepted as "good delivery". Notably, the relevant bars of **Commerzbank** as they are manufactured by **Argor-Heraeus**.

Manufacturing London Good Delivery 400 oz bars at Johnson Matthey (USA).

Manufacturing kilobars at Tanaka (Japan).

Manufacturing minted bars at PAMP (Switzerland).

### FORMER REFINERS OF GOOD DELIVERY BARS

The LBMA, COMEX, TOCOM and DMCC in their lists also refer to former entities. The reason is that bars or brands in circulation that were manufactured or issued *up to the date* when the refiner or brand was no longer recorded on the active list remain good delivery.

**LBMA:** records in a separate list more than 70 "Former Melters and Assayers of Good Delivery Gold Bars".

**COMEX:** refers to more than 25 "Brands" that are no longer made.

**TOCOM:** includes several "Deliverable Brands" that are no longer made.

**DMCC:** refers to a refiner in a "Former List".

### SOURCE OF INFORMATION

The published lists of accredited refiners and brands are the **copyright** of the relevant association or exchange. Reference to the names of active refiners and brands in their lists are incorporated in this section with their permission.

For supplementary information, including any changes to their lists since this section was compiled, reference can be made to their websites.

Manufacturing small cast bars at Metalor (Switzerland).

### NEWLY-ACCREDITED GOLD REFINERS AND BRANDS

| Association or Exchange | Refiner | Country | Refinery Location | Accreditation Date |
|---|---|---|---|---|
| LBMA | Asahi Pretec Corp | Japan | Kobe | 12 – 9 – 2008 |
| LBMA | Al Ghurair Giga Gold Refinery DMCC | UAE | Dubai | 16 – 5 – 2008 |
| TOCOM | LS-Nikko Copper Inc | South Korea | Ulsan | 14 – 5 – 2008 |
| LBMA | Allgemeine Gold- und Silberscheideanstalt AG | Germany | Pforzheim | 8 – 4 – 2008 |
| IGE | Nadir Metal Rafineri A.S. | Turkey | Istanbul | 2 – 1 – 2008 |
| LBMA | Japan Mint | Japan | Kita-ku, Osaka | 13 – 12 – 2007 |
| LBMA | Shandong Zhaojin Gold & Silver Refinery Co Ltd | China | Zhaoyuan City, Shangdong Province | 13 – 12 – 2007 |

Source: Associations and Exchanges

London Good Delivery 400 oz bars manufactured by Heraeus (Germany).

## ACCREDITED GOLD REFINERS AND BRANDS

Active manufacturers and brands of Good Delivery bars accepted by associations and exchanges.

**ACCREDITATION – LBMA – COMEX – TOCOM – DMCC**

| Region | Active Refiner | Refinery Location | Year of Accreditation | | | |
|---|---|---|---|---|---|---|
| | | | LBMA | COMEX | TOCOM | DMCC |
| **EUROPE** | | | | | | |
| Belgium | Umicore SA | Hoboken | 1930* | 1974 | - | - |
| Germany | Allgemeine Gold- und Silberscheideanstalt AG | Pforzheim | 2008# | - | - | - |
| Germany | W C Heraeus GmbH | Hanau | 1958 | 1974 | - | - |
| Germany | Norddeutsche Affinerie AG | Hamburg | 1934# | 1974 | - | - |
| Italy | Chimet SpA | Badia al Pino, Arezzo | 1996 | - | - | - |
| Italy | Metalli Preziosi SpA | Paderno Dugnano, Milan | 1962** | 1974 | - | - |
| Netherlands | Schöne Edelmetaalbedrijven NV | Amsterdam | 1934# | 1974 | - | - |
| Spain | SEMPSA Joyería Platería SA | Madrid | 1984 | - | - | - |
| Sweden | Boliden Mineral AB | Ronnskar | 1984 | - | - | - |
| Switzerland | Argor-Heraeus SA | Mendrisio, Ticino | 1961 | 1974 | 1982 | 2005 |
| Switzerland | Cendres+Métaux SA | Biel-Bienne, Berne | 1981 | - | - | - |
| Switzerland | Metalor Technologies SA | Neuchâtel | 1934** | 1974 | 2007 | 2005 |
| Switzerland | PAMP SA | Castel San Pietro, Ticino | 1987 | 1989 | 1990 | 2005 |
| Switzerland | Valcambi SA | Balerna, Ticino | 1968 | 1974 | 2004 | 2005 |
| **NORTH AMERICA** | | | | | | |
| Canada | Xstrata Canada Corporation | Montreal East, Quebec | 1955# | 1974 | - | 2007 |
| Canada | Johnson Matthey Limited | Brampton, Ontario | 1961 | 1974 | 1988 | 2006 |
| Canada | Royal Canadian Mint | Ottawa, Ontario | 1919* | 1974 | 1988 | 2007 |
| USA | ASARCO Incorporated | Amarillo, Texas | - | 1976 | - | - |
| USA | Heraeus Incorporated | Newark, New Jersey | - | 1989 | - | - |
| USA | Johnson Matthey Inc | Salt Lake City, Utah | 1989 | 1983 | 1994 | 2005 |
| USA | Kennecott Utah Copper Corporation | Magna, Utah | - | 2000 | - | - |
| USA | Metalor Technologies USA Corporation | North Attleboro, Massachusetts | 1991 | 1989 | 1992 | - |
| USA | Sabin Metal Corporation | Scottsville, New York | - | 1989 | - | - |
| **LATIN AMERICA** | | | | | | |
| Brazil | AngloGold Ashanti Brasil Mineração Ltda | Nova Lima, Minais Gerais | 1986 | - | - | - |
| Brazil | Casa da Moeda do Brasil | Rio de Janeiro | - | 1985 | - | |
| Brazil | Umicore Brasil Ltda | Guarulhos, São Paulo | 1992 | 1989 | - | - |
| Mexico | Met-Mex Peñoles SA | Torreon, Coahulla | 1991 | - | - | - |
| **MIDDLE EAST** | | | | | | |
| Turkey | Istanbul Gold Refinery | Istanbul | - | - | - | 2007 |
| UAE | Emirates Gold DMCC | Dubai | - | - | - | 2005 |
| UAE | Al Ghurair Giga Gold Refinery DMCC | Dubai | - | - | - | 2008 |
| **FAR EAST** | | | | | | |
| China | The Great Wall Gold & Silver Refinery of China | Chengdu, Sichuan Province | 1981 | - | - | - |
| China | Inner Mongolia Qiankun Gold and Silver Refinery Share Company Limited | Huhhot, Inner Mongolia | 1999 | - | - | - |
| China | Jianxi Copper Company Ltd | Guixi City, Jiangxi Province | 2005 | - | - | - |
| China | Shandong Zhaojin Gold & Silver Refinery Co Ltd | Zhaoyuan City, Shangdong Province | 2007 | - | - | - |

| Region | Active Refiner | Refinery Location | Year of Accreditation | | | |
|---|---|---|---|---|---|---|
| | | | LBMA | COMEX | TOCOM | DMCC |
| China | Zhongyuan Gold Smelter of Zhongjin Gold Corporation | Sanmenxia City, Henan Province | 2006 | - | - | - |
| China | Zijin Mining Group Co Ltd | Shanghang County, Fujian Province | 2006 | - | - | - |
| Hong Kong | Heraeus Limited | Fanling | 2006 | 1989 | - | 2006 |
| Hong Kong | Metalor Technologies (Hong Kong) Limited | Kwai Chung | 2007 | - | - | - |
| Indonesia | PT Antam Tbk (Logam Mulia) | Jakarta | 1999 | - | - | 2005 |
| Japan | Asahi Pretec Corp | Kobe | 2008 | - | - | - |
| Japan | Chugai Mining Co Ltd | Tokyo | - | - | 1982 | - |
| Japan | Dowa Metals & Mining Co Ltd | Kosaka, Akita Prefecture | - | - | 1982 | - |
| Japan | Ishifuku Metal Industry Co Ltd | Soka, Saitama Prefecture | 1982 | - | 1982 | - |
| Japan | Japan Mint | Kita-ku, Osaka | 2007 | - | - | - |
| Japan | Matsuda Sangyo Co Ltd | Iruma, Saitama Prefecture | 2000 | - | 1993 | 2006 |
| Japan | Mitsubishi Materials Corporation | Kagawa, Kagawa Prefecture | 1981 | 1980 | 1982 | 2007 |
| Japan | Mitsui Mining & Smelting Co Ltd | Takehara, Hiroshima Prefecture | 1981 | - | 1982 | - |
| Japan | Nippon Mining & Metals Co Ltd | Saganoseki, Oita Prefecture | 2000# | - | 1982 | - |
| Japan | Sumitomo Metal Mining Co Ltd | Saijo, Ehime Prefecture | 1981 | - | 1982 | 2006 |
| Japan | Tanaka Kikinzoku Kogyo K.K. | Shonan Works, Kanagawa Prefecture | 1978# | 1980 | 1982 | 2005 |
| Japan | Tokuriki Honten Co Ltd | Shobumachi, Saitama Prefecture | 1981 | - | 1982 | - |
| North Korea | Central Bank of the DPR of Korea | Pyongyang | 1976# | | | |
| South Korea | Korea Zinc Co Ltd | Onsan | 2000 | - | - | - |
| South Korea | LS-Nikko Copper Inc | Ulsan | 1994 | - | 2008 | - |
| Philippines | Bangko Sentral ng Pilipinas | Quezon City | 1979 | - | - | - |
| **AFRICA** | | | | | | |
| South Africa | Rand Refinery Limited | Germiston, Gauteng | 1921* | 1974 | 1993 | 2005 |
| **AUSTRALIA** | | | | | | |
| Australia | AGR Matthey<br>Brand: Perth Mint | Newburn, Western Australia | 2003<br>- | -<br>1974 | -<br>1990 | -<br>2005 |
| **CIS*** ** | | | | | | |
| Russia | OJSC: Novosibirsk Refinery Plant | Novosibirsk | 1999 | - | - | - |
| Russia | OJSC: Prioksky Plant of Non-Ferrous Metals | Kasimov, Ryazan | 1999 | - | - | - |
| Russia | OJSC: Schelkovsky Plant of Secondary Precious Metals | Schelkovo, Moscow | 1999 | - | - | - |
| Russia | OJSC: Ekaterinburg Plant for Non-Ferrous Metals Processing | Ekaterinburg | 1999 | - | - | - |
| Russia | OJSC: The Gulidov Krasnoyarsk Non-Ferrous Metals Plant (“Krastsvetmet”) | Krasnoyarsk | 1999 | - | - | 2007 |
| Russia | OJSC: Kolyma Refinery | Khasyn, Magadan | 2004 | - | - | - |
| Russia | OJSC: Uralelektromed | Verkhnyaya, Pyshma | 2006 | | | |
| Russia | FGUP: Moscow Special Alloys Processing Plant | Moscow | 2007 | - | - | - |
| Kazakhstan | Kazzinc JSC | Ust-Kamenogorsk | 1996 | - | - | - |
| Kyrgyz Republic | Kyrgyzaltyn JSC | Karabalta | 1999# | - | - | - |

| Region | Active Refiner | Refinery Location | Year of Accreditation | | | |
|---|---|---|---|---|---|---|
| | | | LBMA | COMEX | TOCOM | DMCC |
| Uzbekistan | Amalyk Mining and Metallurgical Complex | Almalyk, Tashkent | 1997 | - | - | - |
| Uzbekistan | Navoi Mining and Metallurgical Combinat | Navoi | 1994 | - | 1998 | - |
| **TOTALS** | | | **59** | **25** | **22** | **19** |

Sources: Table of active refiners and brands is derived from lists published by LBMA, COMEX, TOCOM and DMCC. Dimensions and markings on some good delivery bars, and the names of some refiners, have changed since the year of their original accreditation.

### Additional approved brands

| Country | Brand | Headquarters | Year of Accreditation | |
|---|---|---|---|---|
| | | | COMEX | TOCOM |
| Switzerland | Credit Suisse | Zurich | 1974 | 1982 |
| Switzerland | UBS | Zurich | - | 1986 |

Note: Credit Suisse bars are manufactured by Valcambi, UBS bars by Argor-Heraeus or Metalor.

**Notes relating to LBMA list**

* Estimated year of accreditation. ** Accreditation from at least the indicated year of accreditation. *** Russia: “OJSC” stands for Open Joint Stock Company. These companies are also designated “OAO”, which indicates that they operate as a limited company. “FGUP” indicates that the plant is a Federal State Unitary Enterprise.

# Additional accreditation notes:
- Allgemeine Gold und- Silberscheideanstalt AG. LGD bars bear Umicore stamp.
- Xstrata Canada Corporation. Formerly, Falconbridge Limited (30-6-2005 to 22-10-2007), previously Noranda Inc CCR Refinery.
- Norddeutsche Affinerie Aktiengesellschaft. Accredited before 1934. Re-accredited in 1953.
- Schöne Edelmetaalbedrijven NV. Accredited before 1934. LGD bars bear Umicore stamp, since 2006.
- Central Bank of the DPR of Korea. Transferred to former list in 2004, but re-listed in 2006.
- Nippon Mining & Metals Co Ltd. Former Hitachi refinery accredited in 1981, Sagonoseki refinery in 2000.
- Tanaka Kikinzoku Kogyo KK. Isehara Works renamed Shonan Works in 1999.
- KyrgyzaltynJSC. Name and brand changed in 2001.

General notes
- The names of some refiners are not always recorded in exactly the same way on each list.
- The year of accreditation is recorded. Some lists provide the exact date (month and day).
- Only refiners and brands, which are understood to be active by Grendon International Research, are included in the tables.

## ACCREDITATION TO OTHER NATIONAL EXCHANGES

### BRAZILIAN MERCANTILE & FUTURES EXCHANGE, SAO PAULO

The BM&F lists 5 refiners that are located in Brazil.

| Country | Refiner | Refinery Location | Year of Accreditation |
|---|---|---|---|
| Brazil | AngloGold Ashanti Brasil Mineração Ltda | Nova Lima, Minas Gerais | 1986* |
| Brazil | Casa da Moeda do Brasil | Rio de Janeiro | 1986 |
| Brazil | Marsam Metais SA | São Paulo | 1986 |
| Brazil | Ubro-União Brasiliera de Refinadores Ltda | São Paulo | 1999 |
| Brazil | Umicore Brasil Ltda | Guarulhos, São Paulo | 1986** |

Source: BM&F * AngloGold Ashanti Mineração Ltda: refinery in Nova Lima previously manufactured bars with the stamp of Mineração Morro Velho SA until 2006. ** Umicore Brasil Ltda: refinery in Guarulhos previously manufactured bars with the stamp of Degussa SA until 2005.

### ISTANBUL GOLD EXCHANGE

The relevant bars of LBMA-accredited refiners are accepted as good delivery on the IGE.

The IGE also lists an accredited refiner that is located in Turkey.

| Country | Refiner | Refinery Location | Year of Accreditation |
|---|---|---|---|
| Turkey | Istanbul Gold Refinery Limited | Istanbul | 2004 |
| Turkey | Nadir Metal Rafinerie A.S. | Istanbul | 2008 |

Source: IGE Note: The IGE accepts bars branded with the stamps of Commerzbank, Credit Suisse and UBS, for example, as they are manufactured by LBMA-accredited refiners.

### SHANGHAI GOLD EXCHANGE

The SGE lists 29 refiners that are located in China. Accreditation has occurred progressively since the establishment of the SGE in 2002.

The relevant bars of LBMA-accredited refiners are also accepted as good delivery on the SGE.

| Country | Refiner | Province |
|---|---|---|
| China | Wuhu Hengxin Copper Industry Group Co Ltd | Anhui |
| China | Jinchang Smelter of Tongling Nonferrous Metals (Group) Inc | Anhui |
| China | Gold Refinery of Fujian, Zijin Mining Industry Group Co Ltd* | Fujian |
| China | Gansu Seemine New Material Hi-Tech Co Ltd | Gansu |
| China | Gold Refinery of Guangdong Gaoyao Hetai Gold Mine | Guangdong |
| China | Shenzhen Zhonghenglong Real Industry Co Ltd | Guangdong |
| China | Gold Refinery of Zhongjin Gold Co Ltd* | Henan |
| China | Henan Yuguang Gold & Zinc Co ltd | Henan |
| China | Luoyang Zijin Yinhui Gold Metal Smelt Co Ltd | Henan |
| China | Lingbao Gold Co Ltd | Henan |
| China | Lingbao Jinyuan Tonghui Refinery Co Ltd | Henan |
| China | Smelter of Daye Nonferrous Metals Co Ltd | Hubei |
| China | Hunan Chenzhou Mining Industry Co Ltd | Hunan |
| China | Hunan Zhuzhou Smelter Nonferrous Metals Co Ltd | Hunan |
| China | Inner Mongolia Qiankun Gold & Silver Refinery Co Ltd* | Inner Mongolia |
| China | Metalor Technology (Suzhou) Co Ltd | Jiangsu |
| China | Guixi Smelter of Jiangxi Copper Company Limited* | Jiangxi |
| China | Huadian Gold Group Co Ltd | Jilin |
| China | Jilin Jiapigou Gold Mining Industry Co Ltd | Jilin |
| China | Shandong Gold Group Co Ltd, Jiaojia Gold Refinery | Shangdong |
| China | Shangdong Zhaojin Gold & Silver Refinery Co Ltd* | Shangdong |
| China | Shangdong Tarzan Bio-Gold Co Ltd | Shangdong |
| China | Refinery of Shangdong Zhonghai Jincang Mining Industry Co Ltd | Shangdong |
| China | Penglai Penggang Gold Industry Co Ltd | Shangdong |
| China | Yantai Guada Saifeina High-advanced Refining Co Ltd | Shangdong |
| China | Shanghai Xinye Copper Industry Co Ltd | Shanghai |
| China | The Great Wall Gold & Siver Refinery Co Ltd* | Sichuan |
| China | Yunnan Copper Industry Co Ltd | Yunnan |
| China | Yunnan Mining Resources Co Ltd | Yunnan |

Source: SGE * Also accredited to LBMA (6 refiners)

## SHANGHAI FUTURES EXCHANGE

The SHFE lists 10 refiners that are located in China. Accreditation has occurred since the launch of gold futures contracts in January 2008.

The relevant bars of LBMA-accredited refiners are also accepted as good delivery on the SHFE.

| Country | Refiner | Province | Year of Accreditation |
|---|---|---|---|
| China | Tongling Nonferrous Metals (Group) Inc | Anhui | 2008 |
| China | Gold Refinery of Fujian, Zijin Mining Industry Group Co Ltd* | Fujian | 2008 |
| China | Gold Refinery of Zhongjin Gold Co Ltd* | Henan | 2008 |
| China | Lingbao Tonghui Refinery Co Ltd | Henan | 2008 |
| China | Smelter of Daye Nonferrous Metals Co Ltd | Hubei | 2008 |
| China | Guixi Smelter of Jiangxi Copper Company Limited* | Jiangxi | 2008 |
| China | Shangdong Zhaojin Gold & Silver Refinery Co Ltd* | Shangdong | 2008 |
| China | Shangdong Gold Mining Co Ltd | Shangdong | 2008 |
| China | Yunnan Copper Industry Co Ltd | Yunnan | 2008 |
| China | Yunnan Geology Mineral Resources Co Ltd | Yunnan | 2008 |

Source: SHFE * Also accredited to LBMA (4 refiners)

## THE CHINESE GOLD & SILVER EXCHANGE SOCIETY, HONG KONG

The CG&SES lists 7 refiners that are located in Hong Kong.

### Accreditation: 5 tael bars

| Country | Refiner | HQ Location | Year of Accreditation# |
|---|---|---|---|
| Hong Kong | Heraeus Limited* | Fanling, NT | 1999 |
| Hong Kong | King Fook Gold & Jewellery Co Ltd | Central | 1949 |
| Hong Kong | Lee Cheong Gold Dealers Limited | Central | 1959 |
| Hong Kong | Po Sang Financial Investment Services Co Ltd | Central | 1952 |
| Hong Kong | Sun Yip Hong Gold Dealers Ltd | Kowloon | 2004 |
| Hong Kong | Wing Fung Precious Metals Ltd | Kowloon | 1998 |
| Hong Kong | Wong Sha Co Ltd | Kowloon | 2002 |

### Accreditation: 1000 g bars

| Country | Refiner | HQ Location | Kilobar Accreditation |
|---|---|---|---|
| Hong Kong | Heraeus Limited* | Fanling, NT | 2002 |
| Hong Kong | King Fook Gold & Jewellery Co Ltd | Central | 2002 |
| Hong Kong | Po Sang Financial Investment Services Co Ltd | Central | 2002 |
| Hong Kong | Wing Fung Precious Metals Ltd | Kowloon | 2002 |

Source: CG&SES # Relates to year when the refiner became a Bullion Group Member of the Exchange Society. * Heraeus: also accredited to LBMA.

The 400 oz bars of LBMA-accredited refiners are also accepted as good delivery.

Refer to disclaimer on website: www.goldbarsworldwide.com

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