

LONDON GOOD DELIVERY BARS

INTERNATIONAL

INTRODUCTION

This supplement covers an extensive range of **London Good Delivery (LGD) 400 oz gold bars**.

Total: 57 LGD bars from 21 countries.

The names of the 72 active LGD bar manufacturers are recorded on the "The Good Delivery List of Acceptable Refiners: Gold", published by the London Bullion Market Association (LBMA).

The supplement will be expanded over time as more information and photographs become available.

For background information, refer to the two introductory sections on "**Accredited Gold Bar Manufacturers**" and "**London Good Delivery Bars**" under "About Gold Bars" on the home page.

INTERNATIONAL REPRESENTATION

Most refineries, accredited to the LBMA, are now located in the Far East, due mainly to the accreditation of new refineries, notably in China, over the past ten years.

| Region | Number LGD Refineries |
|---------------------|-----------------------|
| Far East | 26 |
| Europe | 16 |
| CIS | 12 |
| Americas | 11 |
| Middle East & India | 5 |
| Africa | 1 |
| Australia | 1 |
| Total | 72 |

Source: LBMA. July 2014.



Bank of England
London

LGD 400 oz bars have underpinned gold dealing in the loco-London bullion market since 1919.



Great Wall (China) has manufactured LGD bars since 1961.



In 2014, MMTC-PAMP (India) became the first refiner in India to manufacture LGD bars.



Krastsvetmet (Russia) has manufactured 400 oz bars with its own official stamp since 1997.



TECHNICAL DESCRIPTION

| Country | Accredited Refiner | Approximate Weight# | Type | Fineness | Approximate Dimensions mm | Accreditation Date## | Illustration Page |
|--------------------------------|----------------------------|---------------------|------|-------------|------------------------------------|----------------------|-------------------|
| EUROPE | | | | | | | |
| Belgium | Umicore | 400 oz | Cast | 999.9 | 215 x 85 x 50 200 x 75 (base) | 1930* | 5 |
| Germany | Allgemeine (Umicore Group) | 400 oz | Cast | 999.9 | 220 x 78 x 50 189 x 53 (base) | 2008 | 5 |
| Germany | Aurubis | 400 oz | Cast | 999.9 | 229 x 80 x 42 211 x 62 (base) | 2009** | 5 |
| Germany | Hafner | 400 oz | Cast | 999.9 | 255 x 76 x 39 237 x 59 (base) | 2013 | 5 |
| Germany | Heraeus | 400 oz | Cast | 995+, 999.9 | 245 x 82 x 34 230 x 60 (base) | 1958 | 5 |
| Italy | Chimet | 400 oz | Cast | 999.9 | 265 x 85 x 39 244 x 64 (base) | 1996 | 6 |
| Netherlands | Schöne (Umicore Group) | 400 oz | Cast | 999.9 | 220 x 78 x 50 194 x 55 (base) | 1934 | 6 |
| Spain | SEMPSA | 400 oz | Cast | 995+ | 245 x 75 x 42 230 x 55 (base) | 1984 | 6 |
| Sweden | Boliden | 400 oz | Cast | 995+, 999.9 | 211 x 86 x 41 205 x 80 (base) | 1984 | 6 |
| Switzerland | Argor-Heraeus | 400 oz | Cast | 995+ | 250 x 80.5 x 40 225 x 55 (base) | 1961 | 7 |
| Switzerland | Cendres+Métaux | 400 oz | Cast | 999.9 | 255 x 80 x 45 211 x 42 (base) | 1981 | 7 |
| Switzerland | Metalor | 400 oz | Cast | 995+, 999.9 | 245 x 87 x 42 213 x 50 (base) | 1934 | 7 |
| Switzerland | PAMP | 400 oz | Cast | 999.9 | 250 x 90 x 40 225 x 58 (base) | 1987 | 7 |
| Switzerland | Precinox | 400 oz | Cast | 999.9 | 250 x 78 x 39 222.5 x 61 (base) | 2012 | 7 |
| Switzerland | Valcambi | 400 oz | Cast | 995+, 999.9 | 252 x 83 x 37 233 x 65 (base) | 1968 | 7 |
| AMERICAS | | | | | | | |
| Canada | Johnson Matthey | 400 oz | Cast | 995+, 999.9 | 260 x 82 x 39 240 x 58 (base) | 1961 | 8 |
| Canada | Royal Canadian Mint | 400 oz | Cast | 999.9 | 245 x 80 x 40 245 x 55 (base) | 1934* | 8 |
| Canada | CCR | 400 oz | Cast | 999.9 | 259 x 82 x 34 252 x 76 (base) | 1955 | 8 |
| USA | Johnson Matthey | 400 oz | Cast | 995+, 999.9 | 248 x 80 x 41 220 x 57 (base) | 1989 | 8 |
| USA | Metalor | 400 oz | Cast | 995+, 999.9 | 270 x 76 x 44 235 x 57 (base) | 1991 | 8 |
| USA | Ohio | 400 oz | Cast | 999.9 | 255 x 77 x 43 | 2013 | 8 |
| USA | Republic Metals | 400 oz | Cast | 995+, 999.9 | 247 x 77 x 38 229 x 62 (base) | 2014 | 8 |
| Brazil | AngloGold Ashanti | 400 oz | Cast | 995+, 999.9 | 212 x 95 x 38 195 x 76 (base) | 1986 | 9 |
| Brazil | Umicore | 400 oz | Cast | 999.9 | 223 x 76 x 50 198 x 50 (base) | 1992 | 9 |
| Mexico | Met-Mex | 400 oz | Cast | 999.9 | 203 x 101 x 41 | 1991 | - |
| MIDDLE EAST & INDIA | | | | | | | |
| India | MMTC-PAMP | 400 oz | Cast | 995+, 999.9 | 250 x 80 x 40 230 x 62 (base) | 2014 | 9 |
| Turkey | Atasay | 400 oz | Cast | 999.9 | 258 x 80 x 39 | 2010 | - |
| Turkey | Istanbul Gold | 400 oz | Cast | 995+, 999.9 | 246 x 76 x 38 228 x 62 (base) | 2011 | - |



| Country | Accredited Refiner | Approximate Weight# | Type | Fineness | Approximate Dimensions mm | Accreditation Date## | Illustration Page |
|------------------|--------------------|---------------------|------|------------------------|------------------------------------|----------------------|-------------------|
| FAR EAST | | | | | | | |
| China | Great Wall | 400 oz | Cast | 999.9 | 258 x 80 236 x 56 (base) | 1961 | 10 |
| China | Zijin Mining | 400 oz | Cast | 999.9 | 255 x 81 x 37 237 x 57 (base) | 2006 | 10 |
| China | Zhongyuan | 400 oz | Cast | 999.9 | 255 x 81 x 37 236 x 57 (base) | 2006 | 10 |
| Hong Kong | Heraeus | 400 oz | Cast | 995+ | 255 x 85 x 35 235 x 65 (base) | 2006 | 11 |
| Hong Kong | Metalor | 400 oz | Cast | 995+, 999.9 | 256 x 85 x 37 230 x 63 (base) | 2007 | 11 |
| Indonesia | Logam Mulia | 400 oz | Cast | 999.9 | 200 x 83 x 43 195 x 75 (base) | 1999 | 11 |
| Japan | Ishifuku | 400 oz | Cast | 999.9 | 238 x 82 x 40 222 x 66 (base) | 1982 | 11 |
| Japan | Japan Mint | 400 oz | Cast | 999.9 | 245 x 78 x 40 223 x 60 (base) | 2008 | 11 |
| Japan | Matsuda | 400 oz | Cast | 999.9 | 260 x 75 x 40 234 x 60 (base) | 2000 | 12 |
| Japan | Mitsubishi | 400 oz | Cast | 999.9 | 245 x 80 x 40 235 x 70 (base) | 1981 | 12 |
| Japan | Mitsui | 400 oz | Cast | 999.9 | 255 x 77.5 x 35 240 x 60 (base) | 1981 | 12 |
| Japan | Nippon | 400 oz | Cast | 999.9 | 230 x 85 x 38 216 x 72 (base) | 2000 | 12 |
| Japan | Sumitomo | 400 oz | Cast | 999.9 | 250 x 75 x 38 230 x 60 (base) | 1981 | 12 |
| Japan | Tanaka | 400 oz | Cast | 995+, 999, 999.9 | 258 x 82 x 47 230 x 56 (base) | 1978 | 12 |
| Japan | Tokuriki | 400 oz | Cast | 999.9 | 260 x 79 x 38 235 x 60 (base) | 1981 | 12 |
| Singapore | Metalor | 400 oz | Cast | 995+, 999.9 | 256 x 85 x 37 230 x 63 (base) | 2014 | 13 |
| South Korea | LS-Nikko | 400 oz | Cast | 999.9 | 250 x 78 x 52 238 x 56 (base) | 1994 | 13 |
| Taiwan | Solartech | 400 oz | Cast | 999.9 | 258 x 80 x 39 236 x 56 (base) | 2010 | 13 |
| AFRICA | | | | | | | |
| South Africa | Rand Refinery | 400 oz | Cast | 995+, 999.9 | 260 x 80 x 40 240 x 60 (base) | 1921* | 13 |
| AUSTRALIA | | | | | | | |
| Australia | The Perth Mint | 400 oz | Cast | 999.9 | 230 x 80 x 41 204 x 65 (base) | 2010** | 13 |
| CIS | | | | | | | |
| Kazakhstan | Kazzinc | 400 oz | Cast | 999.9 | 254 x 88 x 35 229 x 59 (base) | 1996 | 13 |
| Russia | Krastsvetmet | 400 oz | Cast | 999.8, 999.9 | 254 x 88 x 35 229 x 59 (base) | 1999 | 14 |
| Russia | Novosibirsk | 400 oz | Cast | 999.5, 999.8, 999.9 | 254 x 88 x 35 229 x 59 (base) | 1999 | 14 |
| Russia | Prioksky | 400 oz | Cast | 999.5, 999.8, 999.9 | 254 x 88 x 35 229 x 59 (base) | 1999 | 14 |
| Russia | Schelkovsky | 400 oz | Cast | 999.9 | 254 x 88 x 35 229 x 59 (base) | 1999 | 14 |



| Country | Accredited Refiner | Approximate Weight# | Type | Fineness | Approximate Dimensions mm | Accreditation Date## | Illustration Page |
|---------|--------------------|---------------------|------|---------------------|----------------------------------|----------------------|-------------------|
| Russia | Ekaterinburg | 400 oz | Cast | 999.5, 999.8, 999.9 | 254 x 88 x 35 229 x 59 (base) | 1999 | 10 |
| Russia | Kolyma | 400 oz | Cast | 999.5, 999.8, 999.9 | 259 x 93 x 37 233 x 63 (base) | 2004 | 10 |
| Russia | Uralsktromed | 400 oz | Cast | 999.9 | 254 x 88 x 35 229 x 59 (base) | 2006 | 10 |
| Russia | Moscow | 400 oz | Cast | 999.9 | 254 x 88 x 35 229 x 59 (base) | 2007 | 10 |

Source: Refiners # Approximate: fine gold weight can range between 350 oz and 430 oz. ## Current dimensions: some dimensions, markings and company names have changed since the year of original accreditation. * Estimated date. ** The Perth Mint: LGD bars have been issued under former names since at least 1928. ** Aurubis AG: LGD bars were previously issued under the name, Norddeutsche Affinerie, since at least 1934 until 2009.

OTHER LONDON GOOD DELIVERY BARS

Not covered in this supplement.

| Country | Refiner | LGD Listing |
|--------------------|-----------------------------|-------------|
| EUROPE | | |
| Germany | Heimerle & Meule | 2014 |
| MIDDLE EAST | | |
| Saudi Arabia | L'azurde | 2010 |
| Turkey | Nadir | 2011 |
| AMERICAS | | |
| USA | Kennecott | 2014 |
| FAR EAST | | |
| China | Inner Mongolia Qiankun | 1999 |
| China | Shangdong – Laizhou City | 2010 |
| China | Shangdong – Zhaoyuan City | 2007 |
| China | Jianxi Copper | 2005 |
| China | Sichuan Tianze | 2013 |
| Japan | Asahi Pretec | 2008 |
| Japan | Nihon Material | 2013 |
| Philippines | Bangko Sentral ng Pilipinas | 1979 |
| CIS | | |
| Kyrgyz Republic | Kyrgyzaltyn | 1999 |
| Uzbekistan | Amalyk Mining | 1997 |
| Uzbekistan | Navoi Mining | 1994 |



Rand Refinery (South Africa), operating since 1921, has manufactured more LGD bars than any other refiner.



The Perth Mint (Australia) first manufactured LGD bars from 1934 until 1970 as a Branch of the Royal Mint in England.



Prioksky (Russia) has manufactured LGD bars with its own official stamp since 1999.



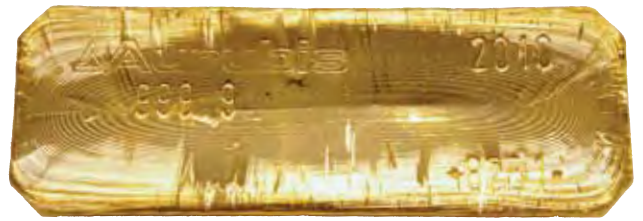
EUROPE



Umicore
Belgium



Allgemeine
Germany



Aurubis
Germany



Hafner
Germany



Heraeus
Germany





Chimet
Italy



Schöne (Umicore Group)
Netherlands



SEMPASA
Spain



Boliden
Sweden





Argor-Heraeus
Switzerland



Cendres+Métaux
Switzerland



Metalor
Switzerland



Precinox
Switzerland



PAMP
Switzerland



Valcambi
Switzerland



AMERICAS



Johnson Matthey
Canada



CCR
Canada



Royal Canadian Mint
Canada



Johnson Matthey
USA



Metalor
USA



Ohio
USA



Republic Metals
USA





AngloGold Ashanti
Brazil



Umicore
Brazil

MIDDLE EAST & INDIA



MMTC-PAMP
India



FAR EAST



Great Wall
China



Zijin
China



Zhongyuan
China





Heraeus
Hong Kong



Metalor
Hong Kong



Logam Mulia
Indonesia



Ishifuku
Japan



Japan Mint
Japan





Mitsubishi
Japan



Matsuda
Japan



Mitsui
Japan



Nippon
Japan



Sumitomo
Japan



Tanaka
Japan



Tokuriki
Japan





Metalor
Singapore



LS-Nikko
South Korea



Solartech
Taiwan

AFRICA



Rand Refinery
South Africa

AUSTRALIA



The Perth Mint
Australia

CIS



Kazinc
Kazakhstan





LGD bars, manufactured by Russian refiners, have the same shape and similar markings, apart from the official stamp of the refiner.

OFFICIAL STAMPS



Krastsvetmet
Siberia



Novosibirsk
Siberia



Prioksky
Central



Schelkovsky
Central



Ekaterinburg
Urals



Kolyma
Far Eastern



Uralelectromed
Urals



Moscow
Central



Krastsvetmet



Moscow



Uralelectromed

Source: The Gokhran of Russia

Refer to disclaimer on website: www.goldbarsworldwide.com

© Grendon International Research Pty Ltd 2014. All rights reserved.

