

SHANGHAI GOOD DELIVERY GOLD INGOTS AND BARS

MANUFACTURED IN CHINA FOR THE
SHANGHAI GOLD EXCHANGE

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The Shanghai Gold Exchange (SGE) opened in 2002.



The SGE accepts 12.5 kg, 3 kg and 1 kg "ingots", manufactured by appointed refiners in China, as Shanghai Good Delivery (SGD).

It also accepts ingots manufactured by LBMA-accredited gold refiners from around the world.

The report is compiled by
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The SGE has appointed 35 refiners in China to manufacture SGD ingots, as well as 23 refiners and other entities to supply SGD 100 g and 50 g "bars".



INTRODUCTION

The **Shanghai Gold Exchange (SGE)**, which opened for trading in 2002, has grown rapidly to become one of the world's major gold dealing exchanges.

Within China, the SGE retains the trading accounts of 8,000 corporate customers and 7 million private individuals.

Daily trading in gold is substantial, sometimes exceeding 3,000 tonnes (USD 120 billion).

The SGE, established by the People's Bank of China (PBC), is supervised and regulated by the PBC.

Shanghai Good Delivery (SGD) Ingots and Bars

The SGE, in its documentation, classifies its good delivery gold bullion products, according to weight, as follows:

"Ingot": 12.5 kg*, 3 kg*, 1 kg

"Bar": 100 g, 50 g

*Approximate weight

This terminology will be used throughout the supplement, when referring to SGD gold bullion products manufactured in China.

Other SGE terminology:

"Bullion Suppliers" = Suppliers of gold ingots

Sources of Ingots and Bars

The SGE accepts ingots and bars from two main sources as SGD:

- China: manufactured by domestic refiners accredited to the SGE.
- Foreign: manufactured by refiners accredited to the London Bullion Market Association (LBMA).

The domestic suppliers of SGD ingots and bars are recorded in two separate lists:

- Gold Ingots: 35 refiners act as "Appointed Bullion Suppliers", i.e. 12.5 kg, 3 kg and 1 kg ingots.
- Gold Bars: 23 refiners and other entities act as "Appointed Gold Bar Suppliers", i.e. 100 g and 50 g bars.

Main Board and International Board

Any institution or individual in China can purchase and take delivery of SGD ingots and bars through the SGE, but the brand cannot be specified.

There is no minimum purchase requirement.

Gold is traded on the SGE through two platforms:

- **Main Board:** Trading (since 2002) within China by more than 160 Financial, Foreign Financial, General and Principal Members with offices in China.



The SGE's official stamp is applied to 12.5 kg, 3 kg and 1 kg ingots that are manufactured in China and sold through the SGE.



- **International Board:** Trading (since 2014) by 40 Foreign Financial Members, which deal in the Shanghai Free Trade Zone through Shanghai International Exchange Co Ltd (SGEI), a wholly-owned subsidiary of SGE.

Most fabricators of products, which require gold, purchase ingots or bars through the SGE.

This means that they usually purchase on their own account, or receive from their trade customers, SGD ingots or bars prior to fabrication, in order to fulfill orders.

For example, a bank, which wants to place an order for investment bars with a fabricator, would normally purchase and supply the fabricator with SGD ingots to have the bars produced.

Distribution

Ingots and bars, for the settlement of transactions, are stored in 55 certified vaults in 36 cities.

In 2014, a vault was established in the Shanghai Free Trade Zone. Storage capacity is 1,500 tonnes.

INGOT SPECIFICATIONS

An SGE document, entitled “**Gold Ingot**” (SGEBI-2002), records the specifications and other requirements for SGD 12.5 kg, 3 kg and 1 kg ingots manufactured in China.

In broad outline:

Weights

While the weights of 12.5 kg and 3 kg ingots can range between defined parameters, 1 kg ingots may not weigh less than 1 kg.

Ingot	Type	Weight		
		Minimum	Maximum	Trading Weight
12.5 kg	Cast	12000 g	12650 g	Actual weight
3 kg	Cast	2950 g	3050 g	Actual weight
1 kg	Cast	1000 g	1000.05 g	1000.00 g

Dimensions

Manufacturers are required to produce ingots to specified dimensions.

Ingot	Length mm	Width mm
12.5 kg	258 +2/-4 236 +/-2 (base)	80 +2/-4 50 +/-2 (base)
3 kg	320 +/-2	70 +/-2
1 kg	115 +/-1	52.5 +/-1



China is the world's largest gold producing country.

Newly-mined gold in China is refined and sold through the SGE.



While the ingots are stamped with three standard marks (corporate stamp, SGE stamp and serial numbering system), additional marks are also applied.

Category	12.5 kg	3 kg	1 kg
Corporate Stamp	Yes	Yes	Yes
SGE Stamp	Yes	Yes	Yes
Weight	-	-	Yes
Fineness	-	Yes	Yes
Grade	Yes	-	-
Serial Number	Yes	Yes	Yes

While stamping the 1 kg weight on the 1 kg ingot is compulsory, stamping the actual weights on 12.5 kg and 3 kg ingots is optional.

The reason is that 12.5 kg and 3 kg ingots, which do not normally weigh exactly 12.5 kg or 3 kg, are of a size whereby any adjustment to their weight caused by future handling or assaying can result in a change in weight.

Grades

Each ingot is stamped with a “designation” that reflects one of 4 grades that are determined mainly by the fineness of the ingot’s fine gold content.

Designation on the Ingot	Grade*	Fineness (%)
Au 99.99	Grade 1	Au = 99.99
Au 99.95	Grade II	99.99 > Au = 99.95
Au 99.9	Grade III	99.95 > Au = 99.90
Au 99.5	Grade IV	99.90 > Au = 99.50

Note: *Excessive impurities will lead to a reduction in the grade and designation.

1 kg: ingots are required to be Grade 1 (Au 99.99 fine)

12.5 kg and 3 kg: grade can vary, but most 12.5 kg ingots are Au 99.99 and 3 kg ingots Au 999.5.

Chemical Composition

To qualify for Grade I (Au 99.99) or Grade II (Au 99.95) designation, the SGE also requires that impurities are kept to a minimum.

Designation Grade	Chemical Composition								
	Au =	Impurity Content Not More Than							Total
		Ag Silver	Cu Copper	Fe Iron	Pb Lead	Bi Bismuth	Sb Antimony		
Au 99.99	I	99.99	0.005	0.002	0.002	0.001	0.002	0.001	0.01
Au 99.95	II	99.95	0.020	0.015	0.003	0.003	0.002	0.002	0.05
Au 99.9	III	99.90	-	-	-	-	-	-	0.1
Au 99.5	IV	99.50	-	-	-	-	-	-	0.5



The SGE specifies the dimensions of Shanghai Good Delivery 12.5 kg, 3 kg and 1 kg ingots that are manufactured in China.



Serial Numbering System

The SGE requires SGD ingots to be stamped with 9 digits that include the SGE's code allocated to the refiner, the ingot size and the year of manufacture.

Digit	Representation
1st	Supplier's code – as allocated by SGE, e.g. A, B, C
2nd	Ingot size: X = 1 kg, Y = 3 kg, Z = 12.5 kg
3rd and 4th	Chronological code, e.g. 2014 = 14
Last 5 digits	Digits at discretion of refiner

Packaging

The SGE specifies the packaging to be used by suppliers:

Ingot	Box		
	Number of Ingots	Dimensions - mm	Material
12.5 kg	2	310 x 205 x 90	Solid wood
3 kg	10	372 x 190 x 90	Solid wood
1 kg	25	275 x 35 x 62	Polyethelene



The 3 kg ingot is distinctive: long, narrow and thin.

COMMUNICATION

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The 1 kg ingot is the most important ingot traded on the SGE for delivery in China.



APPENDICES

APPOINTED SUPPLIERS OF INGOTS*

12.5 kg, 3 kg, 1 kg

Region	Province	Company	SGE Code
North West	Gansu	Refinery of Seemine Gold Co Ltd	V
North West	Shanxi	Shanxi Gold Group Xian Qin Gold Co Ltd	GH
North East	Jilin	Huadian Gold Co Ltd	U
North East	Jilin	China National Group Corporation Jiapigou Gold Mining Industry Co Ltd	W
East	Shandong	Shandong Gold Group (Laizhou) Co Ltd, Gold Refinery	C
East	Shandong	Shandong Zhaojin Gold & Silver Refinery Co Ltd	D
East	Shandong	Shandong Tarzan Bio-Gold Industry Co Ltd	E
East	Shandong	Refinery of Shandong Jincang Mining Industry Co Ltd	N
East	Shandong	Penglai Penggang Gold Industry Co Ltd	S
East	Shandong	Yantai Guoda Safeina High-advanced Refinery Co Ltd	GS
East	Shandong	Shandong Humon Smelting Co Ltd	GC
East	Shandong	Zhongkuang Gold Industry Limited Company	GG
East	Fujian	Gold Refinery of Zijin Mining Industry Co Ltd	I
East	Jiangxi	Guixi Smelter of Jianxi Copper Company Limited	K
East	Anhui	Tongling Nonferrous Metals Group Holding Inc (Precious Metals Company)	L
East	Jiangsu	Metalor Technology (Suzhou) Co Ltd	GB
East	Zhejiang	Hangzhou Fuchunjiang Smelting Co Ltd	GD
South Central	Henan	Henan Zhongyuan Gold Refinery Co Ltd	F
South Central	Henan	Luoyang Zijin Yinhui Gold Smelt Co Ltd	H
South Central	Henan	Lingbao Jinyuan Tonghui Gold Refinery Co Ltd	T
South Central	Henan	Lingbao Gold Co Ltd	Y
South Central	Henan	Henan Yuguang Gold & Lead Co Ltd	Z
South Central	Guangdong	Gold Refinery of Guangdong Jin Ding Gold Co Ltd	J
South Central	Guangdong	Shenzhen Zhonghenglong Real Industry Co Ltd	GA
South Central	Guangdong	Shenzhen Cuilv Gold Co Ltd	GF
South Central	Hunan	Hunan Chenzhou Mining Industry Co Ltd	M
South Central	Hunan	Zhuzhou Smelting Group Co Ltd	O
South Central	Hubei	Daye Nonferrous Metals Co Ltd	G
South West	Sichuan	Zhongchao The Great Wall Precious Metals Co Ltd	A
South West	Sichuan	Sichuan Tian Ze Precious Metals Co Ltd	GE
South West	Yunnan	Yunnan Copper Industry Co Ltd	P
South West	Yunnan	Yunnan Gold Mining Group Co Ltd	X
Autonomous Region			
North	Inner Mongolia	Inner Mongolia Qiankun Gold & Silver Refinery Co Ltd	B
Far West	Xinjiang	Urumqi Tianshan Star Precious Metal Co Ltd	GT
Municipality			
East	Shanghai	Shanghai Xinye Copper Industry Co Ltd	Q

Source: Shanghai Gold Exchange: Annual Report 2013. *SGE terminology: "List of Appointed Bullion Suppliers".



APPOINTED SUPPLIERS OF BARS*

100 g and 50 g

Region	Province	Company	SGE Code
North West	Gansu	Refinery of Seemine Gold Co Ltd	V
East	Shandong	Shandong Gold Group (Laizhou) Co Ltd, Gold Refinery	C
East	Shandong	Shandong Zhaojin Gold & Silver Refinery Co Ltd	D
East	Shandong	Shandong Tarzan Bio-Gold Industry Co Ltd	E
East	Shandong	Refinery of Shandong Jincang Mining Industry Co Ltd	N
East	Shandong	Penglai Penggang Gold Industry Co Ltd	S
East	Shandong	China Mine Gold Industry Co Ltd	GG
East	Fujian	Gold Refinery of Zijin Mining Industry Co Ltd	I
East	Anhui	Tongling Nonferrous Metals Group Holding Inc (Precious Metals Company)	L
South Central	Henan	Henan Zhongyuan Gold Refinery Co Ltd	F
South Central	Henan	Luoyang Zijin Yinhui Gold Smelt Co Ltd	H
South Central	Henan	Lingbao Jinyuan Tonghui Gold Refinery Co Ltd	T
South Central	Guangdong	Gold Refinery of Guangdong Jin Ding Gold Co Ltd	J
South Central	Guangdong	Shenzhen Zhonghenglong Real Industry Co Ltd	GA
South Central	Guangdong	Shenzhen Cuilv Gold Co Ltd	GF
South Central	Hubei	Daye Nonferrous Metals Co Ltd	G
South Central	Hunan	Hunan Chenzhou Mining Industry Co Ltd	M
South West	Yunnan	Yunnan Copper Industry Co Ltd	P
South West	Sichuan	Zhongchao The Great Wall Precious Metals Co Ltd	A
Autonomous Region			
Far West	Xinjiang	Urumqi Tianshan Star Precious Metal Co Ltd	GT
North	Inner Mongolia	Inner Mongolia Qiankun Gold & Silver Refinery Co Ltd	B
Municipality			
North	Beijing	Industrial and Commercial Bank of China Ltd	-
North	Beijing	China Golddeal Investment Co Ltd	-

Source: Shanghai Gold Exchange: Annual Report 2013. *SGE terminology: "List of Appointed Gold Bar Suppliers".

GOLD BAR SPECIFICATIONS

The SGE advises that it does not specify dimensions and markings for Shanghai Good Delivery (99.99 fineness) 100 g and 50 g bars.

It can be noted that few institutions and individuals take delivery of 100 g and 50 g bars through the SGE.



IMPORTERS OF FOREIGN INGOTS AND BARS

The People's Bank of China (PBC) has authorized 9 domestic and 3 foreign banks to import gold ingots and bars that are manufactured by refiners accredited to the London Bullion Market Association (LBMA):

Domestic Banks

Agricultural Bank of China
Bank of China
Bank of Communications
Bank of Shanghai
China Construction Bank
China Everbright Bank
Industrial Bank Co Ltd
Industrial and Commercial Bank of China
Ping An Bank

Foreign Banks

Australian and New Zealand Bank (China) Company Limited
HSBC Bank (China) Limited
Standard Chartered Bank (China) Limited

The PBC allows each bank to import gold up to a specified maximum amount each year.

The ingots and bars must be imported through one of three cities: Beijing, Shanghai or Shenzhen.

The imports are required to be sold into the Chinese market through the SGE.

It can be noted that the export of ingots and bars from China is prohibited at this time.

Monitoring the supply of gold to the Chinese gold market

The SGE is able to monitor the official supply of gold bullion to the Chinese market.

This is possible because (1) imported ingots and bars are sold through the SGE, and (2) newly-mined gold and old gold scrap are refined and sold through the SGE in the form of SGD ingots and bars.

Source: Shanghai Gold Exchange



Ingots and bars, imported into China, are obliged to be manufactured by LBMA-accredited refiners.



Most gold, imported for the Chinese market, is in the form of 1 kg ingots.



EXAMPLES OF INGOTS
Manufactured in China



12.5 kg
Shandong Zhaojin
Shandong

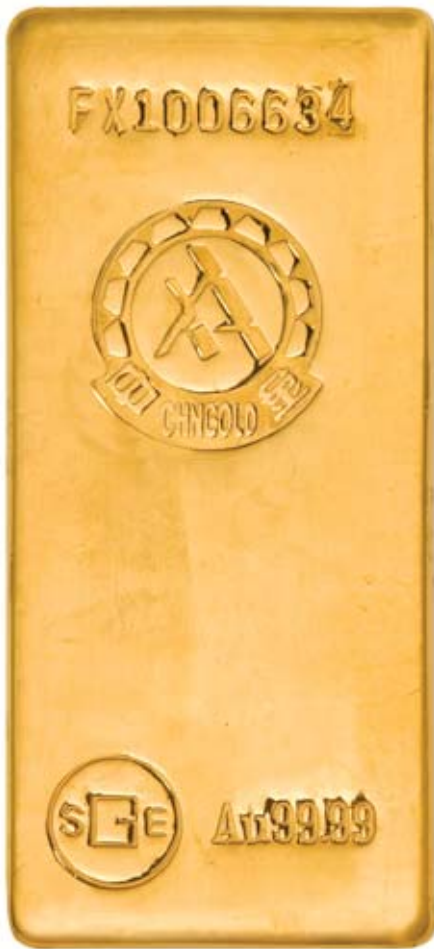


3 kg
Henan Zhaoyuan
Henan



3 kg
Zijin
Fujian





1 kg
Zijin
Fujian



1 kg
Henan Zhongyuan
Henan



Great Wall
Sichuan

Pouring gold at the refinery in Chengdu.



LOCATION OF MARKS ON INGOTS

The mark size is not subject to uniform requirements.

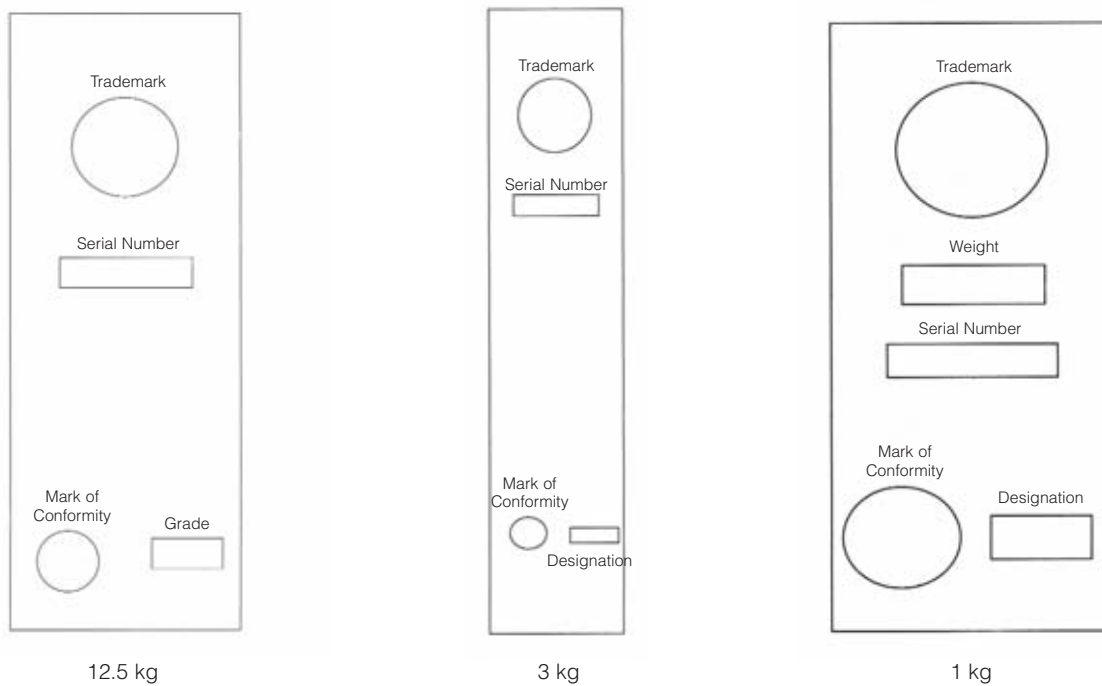
“Trademark”: official stamp of the refiner or brand.

“Mark of Conformity”: official stamp of the SGE.

“Designation”: gold purity.



The SGE's “Mark of Conformity” (official stamp) is applied to ingots that are sold through the SGE.



Source: Shanghai Gold Exchange

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Photographs

Gold Refinery of Zijin Mining Industry Co Ltd

Henan Zhongyuan Gold Refinery Co Ltd

Shandong Zhaojin Gold & Silver Refinery Co Ltd

Zhongchao The Great Wall Precious Metals Co Ltd

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