

KINEBARS®

Manufactured by
Argor-Heraeus SA
Switzerland

Argor-Heraeus SA is the only refiner worldwide to apply a **kinegram®** as a security device to the reverse side of minted gold bars.

A kinegram® is a two-dimensional computer generated image which appears in a variety of colours when illuminated with white light.

The bars, known as **kinebars®**, were first issued in December 1993.

RANGE OF KINEBARS®

Argor-Heraeus applies kinegrams® to its own range of minted bars, as well as to those of two of its major shareholders, Heraeus Holding GmbH and the Austrian Mint:



The kinebar® celebrates its 20th Anniversary in 2013.

Country	Company	Shape	Minted Bar Weights	Kinegram Design	First Issued
Switzerland	Argor-Heraeus SA	Rectangular	100 g, 50 g, 20 g, 10 g, 5 g, 2 g, 1 g, 1 oz	"AH" logo	1994
Germany	Heraeus Precious Metals GmbH & Co KG	Rectangular	20 g, 10 g, 5 g, 2 g, 1 g, 1 oz	"AH" logo	1994
Austria	Austrian Mint	Rectangular	10 g, 5 g, 1 g	Lipizzaner Horse	1995

Source: Argor-Heraeus SA

It also applies customized kinegrams®, if requested, on minted bars and medals that are manufactured for external entities.

For example:

Country	Bank	Shape	Minted Bar Weights	Kinegram Design	First Issued
Switzerland	UBS	Rectangular	100 g, 50 g, 20 g, 10 g, 5 g, 2 g, 1 g, 1 oz, 1 tael	"3-keys" logo	1998*
Switzerland	Raiffeisen Bank	Rectangular	100 g, 50 g, 20 g, 10 g, 5 g, 2.5 g, 2 g, 1 g	"R" logo	2006
Germany	Sparkasse**	Rectangular	1000 g, 500 g, 250 g, 100 g, 50 g, 20 g, 10 g, 5 g, 1 g	"S" logo	1996

Source: Argor-Heraeus SA. *UBS was the first bank to issue kinebars®: in 1993, with a different UBS logo. **Sparkasse is the general name for savings banks in Germany that fall under the jurisdiction of local authorities.

BACKGROUND

The **kinegram®** technology is owned by Leonard Kurz Stifting & Co Ltd. The company, founded in 1892, is a market leader in the manufacture of all aspects of hot-stamping technology. Its headquarters are in Fürth, Germany.

Governments have also used kinegram® technology to ensure the authenticity of documents such as bank notes, identity cards and passports.



A kinegram® was first applied to bank notes, in 1988, by the Austrian State Printing Works.

Source: www.kinegram.com

TECHNICAL DESCRIPTION – EXAMPLES

KINEBARS® - ARGOR-HERAEUS SA

The table records the dimensions of kinebars® issued under the name of Argor-Heraeus SA.

Many of the customized bars, manufactured for external entities, adopt the same dimensions.



Argor-Heraeus is renowned as the world's only manufacturer of kinebars®.

Weight	Type	Finesness	Shape	Dimensions mm	First Made
100 g	Minted	999.9	Rectangular	49.7 x 28.5 x 3.9	2012
50 g	Minted	999.9	Rectangular	49.7 x 28.5 x 2.0	2012
20 g	Minted	999.9	Rectangular	40.4 x 23.3 x 1.3	1994
10 g	Minted	999.9	Rectangular	31.5 x 18.5 x 1.0	1994
5 g	Minted	999.9	Rectangular	23.0 x 14.0 x 1.0	1994
2 g	Minted	999.9	Rectangular	19.0 x 11.5 x 0.6	1994
1 g	Minted	999.9	Rectangular	15.0 x 8.7 x 0.5	1994
1 oz	Minted	999.9	Rectangular	40.4 x 23.3 x 1.75	1994

Source: Argor-Heraeus SA

KINEBARS® - SPARKASSE

The table below records the unusual dimensions of 50 g – 1000 g kinebars® issued by Sparkasse in Germany.

Weight	Type	Finesness	Shape	Dimensions mm	First Made
1000 g	Minted	995, 999.9	Rectangular	93 x 42 x 14.0	1996
500 g	Minted	999.9	Rectangular	93 x 42 x 7.0	1996
250 g	Minted	995, 999.9	Rectangular	93 x 42 x 3.5	1996
100 g	Minted	999.9	Rectangular	93 x 42 x 1.4	1996
50 g	Minted	999.9	Rectangular	93 x 42 x 0.7	1996
20 g	Minted	999.9	Rectangular	40.4 x 23.3 x 1.3	1996
10 g	Minted	999.9	Rectangular	31.5 x 18.5 x 1.0	1996
5 g	Minted	999.9	Rectangular	23.0 x 14.0 x 1.0	1996
1 g	Minted	999.9	Rectangular	15.0 x 8.7 x 0.5	1996

Source: Argor-Heraeus SA



Kinebars® can range in weight from 1 g up to 1000 g.



EXAMPLES OF KINEBARS®

ARGOR-HERAEUS

Switzerland



Argor-Heraeus has manufactured kinebars® since 1993.

HERAEUS

Germany



Heraeus has issued kinebars® since 1994.



AUSTRIAN MINT

Austria



The Austrian Mint has issued kinebars® since 1995.

UBS

Switzerland



UBS has issued its current range of kinebars® since 1998.



RAIFFEISEN BANK

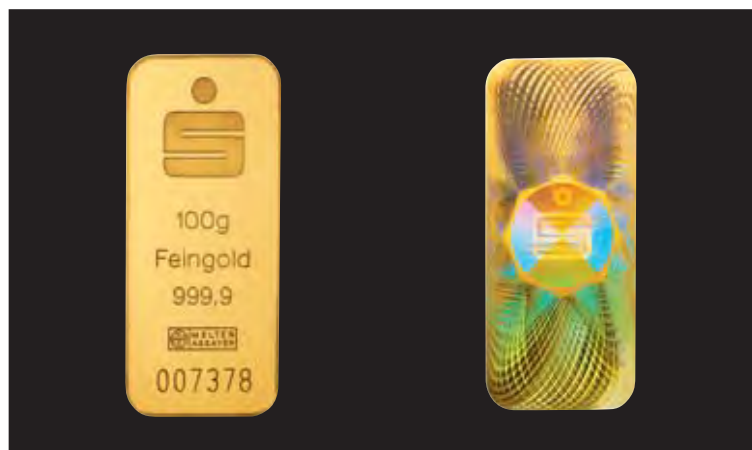
Switzerland



Raiffeisen Bank has issued kinebars® since 2006.

SPARKASSE

Germany



Sparkasse have issued kinebars® since 1996.



UNUSUAL HISTORICAL KINEBARS®

ISSUED BY UBS – IN 1990s

UBS, when operating as the **Union Bank of Switzerland**, issued in the 1990s a remarkable range of kinebars® which guaranteed in writing on each bar the minimum price that would be paid in US dollars or Japanese Yen when redeemed before a specified date.

The bars were issued in three forms, the main features summarized in the table below:

Specification	Kinebar® 2000 In USD	Kinebar® 2001 In USD	Kinebar® 2000 In Yen
Geographic Focus	Switzerland and elsewhere	USA only	Japan only
Bar Weights	1000 g, 500 g, 100 g	1000 g, 100 g	1000 g, 500 g, 100 g
Bar Purity	999.9	999.9	999.9
Year Issued	1994	1996	1997
Latest Redemption Date	14 January 2000	18 December 2001	14 January 2000
Minimum Redemption Price	US\$ 360 per oz	US\$ 360 per oz	Yen 1,250 per gram

Source: Union Bank of Switzerland

KINEBAR® 2000



The Kinebar® 2000 was issued in 1994.

UBS guaranteed a minimum price of US\$360 per troy ounce, if redeemed before 14 January 2000.





Argor-Heraeus manufactures kinebars® at its refining and manufacturing complex in Mendrisio in south eastern Switzerland.

In 2012, as part of its commitment to sustainability, it installed a solar panel and electricity generation system – one of the largest in the region.

ARGOR-HERAEUS SA **Switzerland**

Argor-Heraeus SA, founded in 1951 as Argor SA, has been a leading gold refiner and bar manufacturer for the international market for more than 60 years. Its major shareholders include Heraeus Holding GmbH, Commerzbank International SA and the Austrian Mint.

The company's large refinery and manufacturing plant is located in Mendrisio near Chiasso in south eastern Switzerland.

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

Accreditation

1961 London Bullion Market Association (LBMA)
1974 CME Group – Market Contract: COMEX
1982 Tokyo Commodity Exchange (TOCOM)
2005 Dubai Multi Commodities Centre (DMCC)

Website: www.argor.com

Refer to disclaimer on website: www.goldbarsworldwide.com

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