

Decoding the Marks on Gold and Gold Filled Frames

Carat is a unit of purity for gold alloys, the term being derived from the carob seed, which was originally used on balance scales to measure the weight of pure gold. It denotes the proportion of gold to base metals with 24 carat representing pure gold. Adulteration with a base metal can affect the appearance, giving rise to the descriptions of white gold, pink gold and the common yellow gold. 1 carat is equal to 1/24th of the weight of an object, therefore 22 carats contains 22 parts gold and 2 parts other metal

24 carat gold is generally reserved for display or ceremonial use but not for spectacles frames (or jewellery), being too soft and very prone to scratching and damage. The addition of other metals such as silver, copper or nickel increases hardness, with most solid gold items having a carat rating in the range 9 (being 9/24 pure gold) to 18 (being 18/24 pure gold). In the US, the minimum carat value for gold jewellery to be sold is 10, but in the UK 9 carat is more common.

The term 'carat' is possibly more commonly associated with gemstones when it is a measure of weight (1 carat being equivalent to 200mg), although it is used interchangeably with 'karat' in many countries.

'Gold filled' (GF) describes a layer of 10ct or better gold which is mechanically fused under a combination of heat and pressure to one or more surfaces of supporting base metal, then rolled – hence the synonym 'Rolled Gold' (RG) - or drawn to a given thickness. Spectacle wire is formed by fusing a tube of solid gold to a round rod of base metal which is a close fit for the tube. The resulting gold filled rod is then rolled.

It is vastly superior to gold plate, which quickly wears off and does not stand up well to heat or moisture. Gold-filled goods are often very close in quality and durability to solid gold but at a much lower cost. Due to the method of manufacture, casting processes for intricate or very decorative items are not possible.

Gold-filled material is described in terms of the amount of gold present. For example, 1/10 12ct means 1/10 of the metal is 12ct gold, once all non GF parts have been removed – steel screws, plastics pads and end tips, aluminium decorations, pin plates, joints and the like. Frames made from 1/20 10ct arguably represent the lower limit of GF quality although 1/60 10ct has been used.

Markings are most commonly found on the rear of the bridge and on the frame sides near the joints, with astig style pince-nez often marked on the bridge bars visible only when the lenses are pulled apart. Not all optical frames manufacturers mark the frame overtly; instead they use their own code. These codes are usually explained in the manufacturer's frame catalogues. Some examples of codes are as follows...

AOCo Patented Styles

GF

1-10 10K



1-10 12K



1-10 12K



with 1/5 12K bridge & temple

1-10 14K



1-8 14K



1-10 12K



bridge & temple

Gold

8K

AOC_o



10K

AOC_o



14K

AOC_o

14K



American Optical Company logo

Stoco Karat Stamps

$\frac{1}{80}$ —10K Gold Filled.....	◆
$\frac{1}{40}$ —10K “ “	SS
$\frac{1}{30}$ —10K “ “	S
$\frac{1}{20}$ —10K “ “	ST
$\frac{1}{10}$ —10K “ “	STD
$\frac{1}{20}$ —12K “ “	ST2
$\frac{1}{10}$ —12K “ “	1S2
$\frac{1}{5}$ —12K “ “	1 $\frac{1}{5}$ 2
$\frac{1}{10}$ —12K Gold Filled with $\frac{1}{20}$ —12K eyewire	SP2
$\frac{1}{10}$ —14K Gold Filled	1S4
$\frac{1}{8}$ —14K “ “	1 $\frac{1}{8}$ 4
8K Solid Gold	+ or 8K
10K “ “	10K
14K “ “	14K

Standard Optical Company (STOCO)

AOCo Non Patented Styles

1-10 10K



1-20 10K



1-30 10K



1-10 10K



bridge & temples

B&L Markings

eg B&L 1/10 12K (i.e. a GF frame)

If it includes separate mark, either 7 (for 10K) or 9 (for 14K) - the part of frame with that mark is solid gold



indicates “Stork” brand, 1/7th 10-ct. Rolled Gold with **Solid Gold** Joints.



indicates 1/10th 10-ct. Rolled Gold with **Solid Gold** Joints.



indicates 1/7th 10-ct. Rolled Gold with Rolled Gold Joints.



indicates 1/10th 10-ct. Rolled Gold with Rolled Gold Joints.



indicates 1/20th 10-ct. Rolled Gold with Rolled Gold Joints.

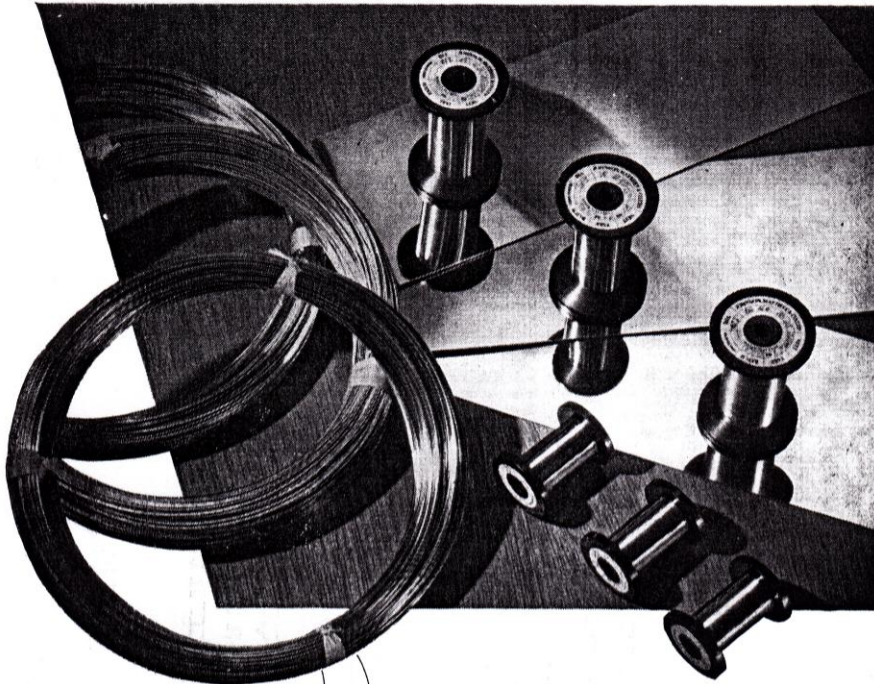


indicates 1/30th 10-ct. Rolled Gold.

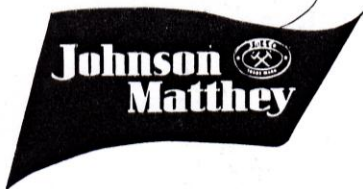
Nitsche &
Gunther

GOLD-FILLED . . .

and fundamentals



Typical forms of Johnson Matthey gold-filled for the optical industry.



Essentially, the spectacle frame is a support for a pair of lenses—yet how much of optical efficiency depends upon the frame material. Ease of accurate adjustment, positive and permanent fit, minimum obstruction of view, strength, lightness, comfort and lasting good appearance—these are the fundamentals of the perfect frame, and, summed up, they are the features that distinguish gold-filled. Gold-filled, offering a combination of properties of benefit to optician and patient alike, contributes to better vision.

JOHNSON, MATTHEY & CO., LIMITED,
HATTON GARDEN, LONDON, E.C.1.

Telephone: HOLBORN 6989.

1959 advert – courtesy of Ronald J S MacGregor