

Gold Cost Per Gram		\$155.00					
Gold Thickness		Gold Weight		Gold Cost		Usage Notes	References
Micro-inches	Microns	per In ²		Per In ²			
2	0.05	0.64	mg	\$0.10		Technically this thickness is commonly called a "Gold Flash". This thickness is very common among inexpensive items that are marketed as "Gold wash" or "Gold Covered". A gold plated item with less than seven micro-inches cannot be legally marketed as "Gold Plated"	16 CFR § 23.3 (c) (2)(3)
7	0.18	2.23	mg	\$0.35		This is the minimum gold plating thickness for a non-jewelry item that can be marketed as "gold plated"	
10	0.25	3.19	mg	\$0.49		This is what is generally considered to be a normal decorative gold plating thickness. When we apply a "bright gold plate" or a "polished gold plate" on an item this is the target thickness. Bright gold plate simply means the gold plating is applied directly over bright nickel. Polished gold plate means that the substrate was polished prior to applying the bright nickel and gold plate. The difference in the cost is the result of the cost of the labor to polish the substrate.	
15	0.38	4.78	mg	\$0.74		Sometimes called "Fifteen millionths". We recommend this thickness when the item we are plating will have more than normal wear. It's not a "Jewelry Grade" of thickness, it is half way between a normal decorative gold plate and a Jewelry grade thickness. Often used for bath fixtures, door handles on cars, many gun parts. It's a little more expensive but often worth the additional cost.	
20	0.51	6.37	mg	\$0.99		This is a "Jewelry Grade" of thickness. The Federal Trade Commission regulates marketing of Jewelry items marketed as gold plated, this is the minimum thickness that must be applied to meet the FTC standard.	16 CFR § 23.3 (c) (2)(3)
30	0.76	9.56	mg	\$1.48		This is a very common thickness that is called out in the specifications for gold plated electronic components such as connectors, PCB fingers, and electronic hardware.	
40	1.02	12.74	mg	\$1.97		This is what we sometimes refer to as a "Double Jewelry Grade" thickness. We use this for items that will have quite a bit of handling and wear such as mouthpieces for musical instruments. This is also a common thickness for fuel cell current collector plates. Sometimes considered as the upper limit for hard gold to be reliably applied without any haziness or post gold plating polishing requirement.	

70	1.78	22.30	mg	\$3.46	Sometimes referred to as a "Triple Jewelry Grade" thickness. This is for an item that will have a lot of wear such as a belt buckle, purse hardware, watch or jewelry item that needs extra durability. A hard gold deposit plated in a single contiguous layer will require light polishing to achieve a high luster. Soft gold will become noticeably matt at this thickness. This is also the thickness where the gold will become "chemically opaque" under most conditions.	
100	2.54	31.85	mg	\$4.94	Heavy Gold Plate. This is another gold plating term regulated by the FTC. Hard gold will require light polishing for a high luster at this thickness. Pure gold at this thickness has reached it's ultimate surface texture. It is also the minimum thickness requirement for Vermeil, pronounced Ver-may. However there are other FTC regulations for Vermeil.	16 CFR § 23.3 (c) (2)(3)
400	10.16	127.41	mg	\$19.75	This thickness is sometimes called "four-tenths" or "four-hundred millionths". We plated the inside of aluminum tubes for a special type of electronic equipment. The gold had to protect the aluminum substrate from high heat, 1000°F and powerful radio frequency radiation, X-rays. This thickness normally requires a soft pure gold deposit. Hard gold could possibly be plated this thick but it would have to be done in multiple consecutive layers with polishing or other interruption done between the layers.	
800	20.32	254.81	mg	\$39.50	Twenty Microns. This is the standard for expensive, fine watch cases. One source told us that each micron of thickness reliably provides one year of expected life for the gold plating. This would certainly require a soft pure gold plate.	
1000	25.40	318.52	mg	\$49.37	One MIL. This is the thickest gold we've ever plated. The project was for high energy research being done at the Idaho National Laboratory.	