

NAJ, JET 1: Assignment 3

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Assignment 3.1:

Which metals have to be hallmarked and below what weights are these metals exempt from hallmarking? Include in your answer a list of all the different fineness standards permitted in the UK.

The metals which have to be hallmarked are silver, gold, platinum and palladium. Since 1 January 1999 in the UK, *The Standard Mark*, which is expressed millesimally (Bradbury, 2018), denotes the fineness (or purity) of precious metal in parts per 1000; and each metal is identified by a different shaped shield surrounding the numbers (NAJ, 2022b).

For example, the shield for silver is oval; for gold: horizontal corner-cut-rectangle; platinum: a horizontal rectangle with a triangular top; and palladium: three adjoining circles (NAJ, 2022b).

The numbers representing the fineness standard of each precious metal are as follows: silver (800 parts/1000, 925, 958, 999); gold (375, 585, 750, 916, 990, 999); platinum (850, 900, 950, 999); and palladium (500, 950,

999). Each millesimal number can also be referred to as a percentage, for example 925 Sterling silver consists of 92.5% silver content. It is worth noting that 958 Britannia silver is actually 958.4/1000; and though the decimal is removed, the fineness is never less than 958.4 (Bradbury, 2018). Figure 1 summarises the shield types and fineness marks permitted in the UK, for each precious metal.

Articles weighing less than 7.78g (silver); 1g (gold); and 0.5g (platinum) are exempt from assay and marking, though these must be at least of the minimum legal fineness (NAJ, 2022b, p. 4).

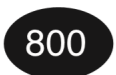
















Silver	Palladium	Gold		Platinum
		 9 carat	 22 carat	
 Sterling		 14 carat		
 Britannia		 18 carat		
				




Figure 1: Fineness marks permitted in the UK. Source: The Goldsmiths Company Assay Office (2023)

Assignment 3.2:

Describe all the marks that may be found on a 950 standard platinum ring hallmarked Birmingham in 2012 and clearly identify which are compulsory and optional.

Compulsory marks (Images source: Assay Office Birmingham (2023a))

On a 950 standard platinum ring hallmarked Birmingham in 2012, I would expect to see the following compulsory marks:

1. A sponsor's mark. For example, Assay Birmingham: 
2. The 950 millesimal fineness mark (inside a horizontal rectangle with a triangle top): 
3. The Birmingham Assay office mark (horizontal anchor): 

Optional marks (Images source: Assay Office Birmingham (2023b))

Optional marks may include the following :

1. The platinum mark. An Orb surmounted by a Cross (Bradbury, 2018, p. 27):



Depending on the date in 2012, for example, if assayed from July 2011 - October 2012,

2. The Diamond Jubilee mark (portrait of Elizabeth II inside a diamond on a circle):



Or if assayed in November or December 2012

3. The Date mark (a lower-case 'n' in a corner-cut square):



Assignment 3.3:

A Convention Hallmark is an alternative hallmark to a UK domestic hallmark. Explain why a sponsor or manufacturer within the UK may request such a hallmark and describe the four marks it comprises of.

A sponsor or manufacturer in the UK may request a *Convention Hallmark* when exporting precious metal wares to any of the 20 Member States of the Hallmarking Convention. Current member States are: Austria, (Croatia, from 19 March 2018; (Bradbury, 2018, p. 44)) Cyprus, Czech Republic, Denmark, Finland, Hungary, Ireland, Israel, Latvia, Lithuania, The Netherlands, Norway, Poland, Portugal, Slovak Republic, Slovenia, Sweden, Switzerland and United Kingdom (UK) (Bradbury, 2018, p. 44; NAJ, 2022b, p. 3).

The Convention Hallmarks were introduced in 1976 to help prevent problems with hallmarking imported goods to the UK; and exporting items where the UK hallmarking was not legally recognised (Bradbury, 2018).

In addition to the

1. registered sponsor mark

the convention hallmark includes:

2. A common control mark: the fineness number (parts/1000) between a set of scales, surrounded by a shield shape-dependent on metal type (for example, gold = two adjoining circles).
3. A standard of fineness: the fineness number (parts/1000) repeated for clarity (no background/shield; see Table 1).
4. The Assay Office mark (UK or Convention member): for example, London = the leopard head in a corner-cut square shield (Bradbury, 2018; NAJ, 2022b).

Table 1: Standard of fineness marks

Silver	Gold	Platinum	Palladium
800	375	850	500
925	585	900	950
958	750	950	999
999	916	999	-
-	990	-	-
-	999	-	-

Assignment 3.4:

Discuss the benefits of Fairtrade gold, detailing a designer or manufacturer who promotes this.

In order to discuss the benefits of Fairtrade gold it should first be acknowledged that conventional gold mining can cause environmental and social problems. Chang (2021) further explains that chemicals used in conventional mining eventually end up in local rivers and water-tables; and that mining gold produces vast amounts of soil waste. In addition to these environmental problems, social issues affect the miners and their families though lack of worker’s rights, risking injury or death; destruction of the local economy; and disadvantaging female workers in favour of male miners.

This is where Fairtrade gold seeks to redress the balance of these issues. Therefore, the benefits of Fairtrade gold include helping to protect the local environment; and ensuring small-scale workers are treated fairly and fair deal for their hard work (Fairtrade Foundation, 2023; NAJ, 2022a). The official Fairtrade Gold Standard (Fairtrade International, 2013) sets out the intent, requirements and guidance for the trade and production of Fairtrade gold, which applies to certified artisanal and small-scale mining organizations from countries in the southern hemisphere (Latin America; Africa; the Middle-East; and Asia), and traders who buy and sell their wares. Specific benefits include (and are not limited to): protection of worker’s health and wellbeing, protection of women’s and children’s rights; protection of the environment, for example, no use of chemicals; no support of armed groups; documented traceability of gold from source; use of the Fairtrade mark which shows ethical support for Fairtrade endeavours. The Fairtrade Foundation (2023) lists 24 (of over 300) jewellers who are part of their licensee scheme, one of whom is *Harriet Kelsall*.

Harriet Kelsall (2023) is proud and honoured to be a Fairtrade jeweller. They were initially asked by Fairtrade to help with the process of connecting smaller jewellers; and with nineteen others, launched Fairtrade gold worldwide. Their customers who opt for jewellery made with Fairtrade gold pay a small premium which goes directly to the Peruvian miners to use how they wish (also see NAJ, 2022a, p. 7). Kelsall compares the cost to a meal-out-for-two, a small price to pay for the customer to know they are helping to make a difference. There is no company profit made from this transaction, and an official Fairtrade stamp is also issued by an Assay Office on their Fairtrade gold jewellery. In her statement, Harriet Kelsall (2023) is also “committed to educating people” about the benefits of Fairtrade gold over ‘standard’ gold, and hopes that demand will become high enough to permanently use Fairtrade gold.

Assignment 3.5:

Explain as you would to a colleague or customer the differences, properties and benefits of white-gold, palladium and platinum.

“White-gold, palladium and platinum are basically classed as ‘the white metals’ and are popular for engagement and wedding rings (Corey Egan, 2023; GIA, 2015). I have three rings here, one of each type - simple wedding

bands, and whilst they look similar, some of their differences and properties are not obvious at first glance. So let's talk about some of the differences between them before moving onto their properties and benefits."

Differences

"This white-gold ring, for example. You can tell the metal type and fineness by looking at the hallmarks through a loupe. See the 750 in a corner cut rectangle? That's 18ct (75%) gold - we'll get on to how it's called white-gold when we talk about properties. The difference in the platinum ring is the 950 fineness (95% platinum) in a rectangle with a triangular top; and the palladium one has 950 (95% palladium) in three adjoining circles (which shows it was made after January 2010 (Bradbury, 2018), otherwise the number would be in a trapezium shape. If you look closely, you can just about make out that platinum has the whitest colour over palladium and white-gold, and ironically, white-gold has the least whitest colour of them all (see Corey Egan, 2023 for further comparisons)."

Properties

"White-gold is generally made by alloying gold with silver or palladium (NAJ, 2022a), and can be rhodium plated to give a whiter finish (Corey Egan, 2023). Palladium is more scratch resistant than both white-gold and platinum. Platinum and palladium are both hypo-allergenic because they are purer than white gold and do not contain nickel. Palladium is a by-product of platinum mining (GIA, 2015), and is 40% lighter (NAJ, 2022a) than platinum [SG: 21.40; Hall (2021), p. 52], which is heavier than gold [SG: 19.30; Hall (2021), p. 48]. All three metal types obviously have a metallic lustre."

Benefits

"As for the benefits of each metal type, all three are durable though palladium is the most scratch resistant. White-gold may have the lower cost due to the least amount of pure metal, but platinum is rarer and weighs more (Corey Egan, 2023). On the other hand, palladium has the lightest weight so can be used to make larger pieces of jewellery (NAJ, 2022a). Platinum is also very strong and less brittle than white-gold which is good for setting diamonds (GIA, 2015). Platinum and palladium are also less likely to tarnish."

Words: 1508

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