

The properties of wedding ring metals

Platinum



Pt

Usually 95% platinum; iridium, ruthenium and palladium are common alloying metals.

Hardness (0-10) **4.0-4.5**

Density (g/cm³) **21.45**

Melting point (°C) **1768**

Value **££££**

Resizeable? **Yes**

Palladium



Pd

Usually 95% palladium. Other metals make up the remaining 5%, commonly ruthenium.

Hardness (0-10) **4.8**

Density (g/cm³) **12.02**

Melting point (°C) **1555**

Value **£££**

Resizeable? **Yes**

White gold



Au
Pd Rh

Commonly an alloy of gold and palladium (or platinum), plated with rhodium.

Hardness (0-10) **2.5-4.0**

Density (g/cm³) **14.64**

Melting point (°C) **943**

Value **£££**

Resizeable? **Yes**

Yellow gold



Au
Ag Cu

An alloy of gold with smaller amounts of copper and silver.

Hardness (0-10) **2.5-4.0**

Density (g/cm³) **15.58**

Melting point (°C) **927**

Value **£££**

Resizeable? **Yes**

Rose gold



Au
Cu Ag

An alloy of gold and copper, with smaller amounts of silver.

Hardness (0-10) **2.5-4.0**

Density (g/cm³) **15.18**

Melting point (°C) **902**

Value **£££**

Resizeable? **Yes**

Sterling silver



Ag
Cu

Sterling silver must contain 92.5% silver. The remainder is other metals, usually copper.

Hardness (0-10) **2.5-3.0**

Density (g/cm³) **10.36**

Melting point (°C) **893**

Value **££**

Resizeable? **Yes**

Titanium



Ti
V Al

Commonly made from a blend of titanium, vanadium and aluminium.

Hardness (0-10) **6.0**

Density (g/cm³) **4.506**

Melting point (°C) **1668**

Value **£**

Resizeable? **No**

Black zirconium



ZrO₂

Made by oxidising zirconium to produce a black coating of zirconium oxide.

Hardness (0-10) **7.5-8.0**

Density (g/cm³) **5.680**

Melting point (°C) **2715**

Value **£**

Resizeable? **No**

Tungsten carbide



WC

Alloyed with small amounts of cobalt so that the rings can be more easily shaped.

Hardness (0-10) **8.5-9.0**

Density (g/cm³) **15.63**

Melting point (°C) **2870**

Value **£**

Resizeable? **No**

Stainless steel



Fe
C Cr

An alloy of iron, carbon and other elements. Stainless steel contains min. 10.5% chromium.

Hardness (0-10) **5.0-6.5**

Density (g/cm³) **8.050**

Melting point (°C) **1370**

Value **£**

Resizeable? **No**