

Gold, Platinum and Silver Alloy Technical Data

Yellow Gold

Carat	Minimum Au Content	Also contains						Melt Point °C	Density	Hardness	Use
		Ag	Cu	Zn	Pd	Pt	Ir				
18ct	75.00	X	X					880°–890°	15.50	Medium hard	General purpose
9ct	37.50	X	X	X				870°–950°	11.19	Medium hard	General purpose

Pink Gold

Carat	Minimum Au Content	Also contains						Melt Point °C	Density	Hardness	Use
		Ag	Cu	Zn	Pd	Pt	Ir				
18ct	75.00	X	X	X				870°–900°	15.50	Medium hard	General purpose
9ct	37.50	X	X	X				890°–930°	11.19	Hard	General purpose

White Gold

Carat	Minimum Au Content	Also contains						Melt Point °C	Density	Hardness	Use
		Ag	Cu	Zn	Pd	Pt	Ir				
18ct/T	75.00	X	X	X	X			1055°–1120°	15.90	Medium hard	General purpose
18ct/E	75.00		X	X	X			1040°–1150°	15.80	Medium hard	General purpose
9ct	37.60	X	X	X	X			1030°–1100°	12.80	Medium hard	General purpose
9ct setting	37.50	X			X	X	X	1370°	13.50	Medium hard	Setting

Platinum

Carat	Minimum Pt Content	Also contains						Melt Point °C	Density	Hardness	Use
		Ag	Cu	Zn	Pd	Pt	Ir				
Pt	96.00		X			X		1730°–1745°	20.30	Medium hard	General purpose

Silver

Carat	Minimum Ag Content	Also contains						Melt Point °C	Density	Hardness	Use
		Ag	Cu	Zn	Pd	Pt	Ir				
Fine	99.99	X						961°	10.50	Soft	Alloying and General purpose
Sterling	92.50	X	X					890°	10.40	Medium	General purpose

Hardness (Hv – HARDNESS VICKERS)

Hardness is based on annealed metal

Soft – Below 70 Hv • Medium – 70-90 Hv • Medium Hard – 100-129 Hv • Hard – 130-159 Hv

Solder Technical Data

Yellow Gold Solder – 9ct

Grade	Minimum Au Content	Working Temperature °C
X-Easy	37.50	620°
Easy	37.50	650°
Medium	37.50	690°
Hard	37.50	750°

Yellow Gold Solder – 18ct

Grade	Minimum Au Content	Working Temperature °C
Easy	75.00	700°
Medium	75.00	750°
Hard	75.00	820°

White Gold Solder

Grade	Minimum Au Content	Working Temperature °C
Easy	50.00	720°
Medium	58.50	800°
Hard	83.30	850°

Pink Gold Solder – 14ct

Grade	Minimum Au Content	Working Temperature °C
Easy	58.50	740°

Platinum Solder

Grade	Minimum Pt Content	Working Temperature °C
Easy	–	1110°
Medium	–	1240°
Hard	–	1400°

Silver Solder

Grade	Minimum Ag Content	Working Temperature °C
X-Easy	55.00	620°–660°
Easy	60.00	620°–685°
Medium	60.00	695°–730°
Hard	67.50	700°–730°
Enamel	75.00	740°–775°

NB Some solders contain cadmium