Conversion Formulae

Power Conversions
1 horsepower = 746 watts
1 cubic meter / hour = 1,000 litres / hour
1cubic foot / minute = 28.32 litres / minute

Alloying Fine Gold
For every gram of Fine Gold add...
1.66g Master Alloy for 9ct
0.33g Master Alloy for 18ct

For every gram of Master Alloy add...
0.6g Fine Gold for 9ct
3.0g Fine Gold for 18ct

Pressure - 1Bar equals
29.53 inches mercury
10 metres (water)
100 Kilopascals
1000 millibar
14.5 p.s.i

Gauge Conversions

Gauge	Inch	Millimeter
6	0.162	4.11
8	0.129	3.28
10	0.102	2.59
12	0.081	2.06
14	0.064	1.63
16	0.051	1.29
18	0.040	1.02
20	0.032	0.81
22	0.025	0.64
24	0.020	0.51
26	0.016	0.41
28	0.013	0.33

Weight Conversions

From	To	Factor
Gram (g)	Carat	5.00
Carat (ct)	Gram	0.20
Gram (g)	Ounce	0.035
Ounce (oz)	Gram	28.35
Pound (lb)	Kilogram	0.454
Kilogram (kg)	Pound	2.204
Carat (ct)	Grain	3.086
Grain (grn)	Carat	0.324
Pennyweight (dw)	Gram	1.555
Troy Ounce (ozt)	Ounce	1.097

Wax to Metal Weight Conversion

Metal	Factor
925 Silver	10.3
9ct Yellow	11.1
9ct Rose	11.3
9ct White (Pd)	12.5
14ct Yellow	13.8
18ct Yellow	15.5
18ct Rose	15.1

Wax to metal conversion factors are a guide only as alloy compositions vary.

Temperature Chart

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0	32	350	662	600	1,112	850	1,562	1,100	2,012
100	212	400	752	650	1,202	900	1,652	1,150	2,102
200	392	450	842	700	1,292	950	1,742	1,190	2,174
250	482	500	932	750	1,382	1000	1,832	1,260	2,300

Temperatures for Vulcanizing Rubber

Castaldo Gold & White Label
Optimum Temperature is 152°C.
Allow 7.5 minutes for each thickness (3.2mm) with 30 minutes minimum and 75 minutes maximum.

Castaldo No Shrink Pink
Ask for detailed instructions, as some experimentation may be necessary for best results with your vulcanizer.
Begin at 154°C for 7.5 minutes / layer.

Metal	Melting Point °F	Melting Point °C	Specific Gravity	Metal	Melting Point °F	Melting Point °C	Specific Gravity
Aluminum	1,220	660	2.71	Iron (pure)	2,795	1,535	7.86
Antimony	1,167	630	6.62	Lead	621	327	11.36
Beryllium	2,462	1,350	1.82	Magnesium	1,204	651	1.74
Bismuth	520	271	9.8	Manganese	2,273	1,245	7.20
Cadmium	610	321	8.67	Molybdenum	4,748	2,620	10.20
Chromium	3,326	1,830	7.14	Nickel	2,645	1,452	8.85
Cobalt	2,696	1,480	8.90	Osmium	4,892	2,700	22.48
Copper	1,981	1,083	8.94	Palladium	2,831	1,555	12.02
Gold	1,945	1,063	19.32	Platinum	3,224	1,773	21.45
18ct Green	1,810	988	15.90	15% iridio plat.	3,310	1,821	21.59
18ct Yellow	1,700	927	15.58	10% iridio plat.	3,250	1,788	21.54
18ct White	1,730	943	14.64	5% iridio plat.	3,235	1,779	21.50
18ct Red	1,655	902	14.15	Rhodium	3,551	1,955	12.45
14ct Yellow	1,615	879	13.07	Ruthenium	4,442	2,450	12.40
14ct White	1,825	996	12.61	Silicon	2,588	1,420	2.40
14ct Red	1,715	935	13.26	Silver	1,761	961	10.49
10ct Yellow	1,665	907	11.57	Sterling	1,640	893	10.40
10ct White	1,975	1,079	10.07	Tin	450	232	7.29
Iridium	4,449	2,454	22.40	Zinc	787	419	7.14