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Carats to Millimeters Conversion Chart for Round Diamonds

Carat (ct)	Millimeters (mm)
0.005	1.0
0.007	1.2
0.010	1.3
0.015	1.5
0.020	1.7
0.025	1.8
0.030	2.0
0.035	2.1
0.04	2.2
0.05	2.4
0.06	2.5
0.07	2.7
0.08	2.8
0.09	2.9
0.10	3.0
0.11	3.1
0.12	3.2
0.14	3.3
0.15	3.4
0.16	3.5
0.17	3.6
0.18	3.7
0.20	3.8
0.22	3.9
0.23	4.0
0.25	4.1
0.30	4.2
0.33	4.4
0.35	4.5
0.38	4.6
0.40	4.8
0.43	4.9
0.47	5.0
0.50	5.2
0.60	5.4
0.63	5.5
0.65	5.6
0.75	5.8
0.80	6.0
0.85	6.2
0.95	6.4
1.00	6.5
1.10	6.6
1.17	6.8

Carat (ct)	Millimeters (mm)
1.25	7.0
1.33	7.2
1.50	7.4
1.60	7.6
1.75	7.8
1.90	8.0
2.00	8.2
2.15	8.4
2.25	8.6
2.50	8.8
2.65	9.0
2.85	9.2
3.00	9.4
3.15	9.6
3.35	9.8
3.50	10.0
3.75	10.2
4.00	10.4
4.25	10.6
4.50	10.8
4.75	11.0
5.00	11.2
5.25	11.4
5.50	11.6
5.75	11.8
5.81	11.8
6.00	11.9
6.25	12.1
7.00	12.5
7.50	12.9
7.75	13.0
8.00	13.1
8.23	13.3
8.50	13.4
8.75	13.5
9.00	13.7
9.20	13.8
9.75	14.0
10.34	14.5
12.00	15.0
12.92	15.4
13.17	15.5
14.50	16.0

Weights and Measurements Conversion Chart

To Convert	(x)	Multiply by	(=)	To Get
Carat (ct)		0.1286		Pennyweight (dwt)
Carat (ct)		0.2		Gram (g)
Pennyweight (dwt)		7.776		Carat (ct)
Pennyweight (dwt)		1.5552		Gram (g)
Pennyweight (dwt)		0.05		Ounce (troy)
Gram (g)		5		Carat (ct)
Gram (g)		0.64301		Pennyweight (dwt)
Kilogram (kg)		32.1507		Ounce (troy)
Kilogram (kg)		0.643014		Pennyweight (dwt)
Inch		25.4		Millimeters (mm)
Ounce (av)		0.91146		Ounce (troy)
Ounce (av)		28.3495		Gram (g)
Ounce (troy)		31.1035		Gram (g)
Ounce (troy)		1.0971		Ounce (av)
Pounds (lb)		453.592		Gram (g)
Pounds (lb)		291.666		Pennyweight (dwt)
Pounds (lb)		14.583		Ounce (troy)

Gauge to Millimeters Conversion Chart for Round Wire/Flat Sheet

Gauge (ga)	Millimeters (mm)
0	8.25
2	6.54
4	5.19
6	4.11
8	3.26
10	2.59
12	2.05
13	1.83
14	1.63
15	1.45
16	1.29
18	1.02
19	0.91

Gauge (ga)	Millimeters (mm)
20	0.81
21	0.721
22	0.643
23	0.572
24	0.511
25	0.455
26	0.404
27	0.36
28	0.32
29	0.285
30	0.254
32	0.201
34	0.16

Gemstone Hardness and Specific Gravity

Material	Hardness (Mohs)	Gravity
Agate	7	2.54-2.65
Alexandrite	8.5	3.68 - 3.78
Amber	2.5	1.08-1.1
Amethyst	7	2.63-2.65
Ametrine	7	2.63-2.65
Andalusite	7.5	3.13-3.21
Apatite	5	3.20
Aquamarine	7.5	2.67-2.91
Aventurine	7	2.62-2.65
Azurite	3.5	3.78
Beryl	7.5	2.69
Bloodstone	7	2.60-2.65
Chalcedony	7	2.61-2.65
Calcite	3	2.71
Carnelian	7	2.60-2.65
Chrysoberyl	8.5	3.68-3.78
Chrysoprase	7	2.58-2.65
Citrine	7	2.65
Coral	3.5	2.65-2.68
Corundum	9	3.96-4.01
Diamond	10	3.52
Emerald	7.5	2.63-2.91
Feldspar	6	2.55-2.76
Fluorite	4	3.10
Garnet	6.5-7.5	3.5-4.3
Goldenite	7	2.63-2.91
Goshenite	7.5	2.63-2.91
Gypsum	2	2.31-2.33
Heliodor	7.5	2.63-2.91
Hematite	6.5	5.05-5.20
Hiddenite	7	3.18
Howlite	3.5	2.53-2.59
Iolite	7	2.59-2.63
Ivory	2.5	1.80
Jade	6.5-7	2.90-3.10

Material	Hardness (Mohs)	Gravity
Jasper	7	2.58-2.91
Jet	2.5	1.38
Kunzite	7	3.16-3.2
Kyanite	7.0/5.0	3.60-3.68
Labradorite	6	2.55-2.76
Lapis Lazuli	5.5	2.70-2.90
Malachite	4	3.80
Moonstone	6	2.55-2.76
Morganite	7.5	2.63-2.91
Obsidian	5	2.30-2.6
Onyx	7	2.60-2.65
Opal	6.05/6.5	1.98-2.25
Pearl	3	2.70-2.75
Peridot	6.5	3.22-3.45
Quartz	7	2.65
Rhodochrosite	4	3.6-3.7
Rhodonite	6	3.6
Ruby	9	3.97-4.08
Sapphire	9	3.99-4.05
Sardonyx	7	2.61
Scapolite	6	2.70
Serpentine	2.5/5	2.4-2.8
Silimanite	7.5	3.25
Sodalite	5.5	2.13 -2.29
Spinel	8	3.58-4.06
Sunstone	6	2.55-4.06
Talc	1	2.75
Tanzanite	6.5	3.35
Tiger's Eye	7	2.64-2.71
Topaz	8	3.50-3.60
Tortoiseshell	2.5	1.30
Tourmaline	7.5	3.02-3.26
Turquoise	6	2.60-2.80
Zircon	7.5	4.60-4.70

Metal Hardness and Specific Gravity

Metal	Hardness (Vickers)	Density (gram/cubic cc)
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Gold (Au)

10kt Yellow Gold, Standard	128	11.32
10kt Yellow Gold, Bright	135	11.47
10kt Yellow Gold, Rich	131	11.42
10kt White Gold	165	10.99
10kt Rose/Red Gold	120	11.52
14kt Yellow Gold, Standard	134	12.84
14kt Yellow Gold, Clean Cast	138	12.89
14kt Yellow Gold, Bright	155	12.99
14kt Yellow Gold, Rich	162	13.05
14kt Yellow Gold, Lemon	165	12.84
14kt Green Gold	88	14.17
14kt X ₁ White Gold (.585)	204	12.58
18kt Yellow Gold, Royal	126	15.53
18kt Yellow Gold, Rich	160	15.39
18kt Rose/Red Gold	257	15.02
18kt White Gold, Soft (low nickel)	203	14.62
18kt X ₁ White Gold	231	14.69
22kt Yellow Gold	74	17.86
24kt Fine Gold	30	19.30

Silver (Ag)

Fine Silver	26	10.49
Sterling Silver	70	10.35

Platinum (Pt)

.585 Platinum	145	17.27
.900 Platinum Iridium	110	21.56
.950 Platinum Cobalt	135	20.10

Palladium (Pd)

.950 Super Palladium	138	11.79
14kt White Palladium	125	14.37
18kt White Palladium	158	15.66

Titanium (Ti)

Titanium	99	4.51
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Finger Size to Millimeters Size Conversion Chart

Finger Size	Millimeters (mm)
3	14.036
3 $\frac{1}{8}$	14.139
3 $\frac{1}{4}$	14.242
3 $\frac{3}{8}$	14.345
3 $\frac{1}{2}$	14.448
3 $\frac{5}{8}$	14.551
3 $\frac{3}{4}$	14.654
3 $\frac{7}{8}$	14.757
4	14.860
4 $\frac{1}{8}$	14.963
4 $\frac{1}{4}$	15.066
4 $\frac{3}{8}$	15.169
4 $\frac{1}{2}$	15.272
4 $\frac{5}{8}$	15.375
4 $\frac{3}{4}$	15.478
4 $\frac{7}{8}$	15.582
5	15.686
5 $\frac{1}{8}$	15.789
5 $\frac{1}{4}$	15.892
5 $\frac{3}{8}$	15.995
5 $\frac{1}{2}$	16.089
5 $\frac{5}{8}$	16.201
5 $\frac{3}{4}$	16.304
5 $\frac{7}{8}$	16.407
6	16.510

Finger Size	Millimeters (mm)
6 $\frac{1}{8}$	16.613
6 $\frac{1}{4}$	16.716
6 $\frac{3}{8}$	16.819
6 $\frac{1}{2}$	16.922
6 $\frac{5}{8}$	17.025
6 $\frac{3}{4}$	17.128
6 $\frac{7}{8}$	17.231
7	17.334
7 $\frac{1}{8}$	17.437
7 $\frac{1}{4}$	17.540
7 $\frac{3}{8}$	17.643
7 $\frac{1}{2}$	17.746
7 $\frac{5}{8}$	17.849
7 $\frac{3}{4}$	17.952
7 $\frac{7}{8}$	18.056
8	18.160
8 $\frac{1}{8}$	18.236
8 $\frac{1}{4}$	18.366
8 $\frac{3}{8}$	18.469
8 $\frac{1}{2}$	18.572
8 $\frac{5}{8}$	18.675
8 $\frac{3}{4}$	18.778
8 $\frac{7}{8}$	18.881
9	18.984
9 $\frac{1}{8}$	19.087

Finger Size	Millimeters (mm)
9 $\frac{1}{4}$	19.190
9 $\frac{3}{8}$	19.239
9 $\frac{1}{2}$	19.396
9 $\frac{5}{8}$	19.499
9 $\frac{3}{4}$	19.602
9 $\frac{7}{8}$	19.705
10	19.808
10 $\frac{1}{8}$	19.911
10 $\frac{1}{4}$	20.014
10 $\frac{3}{8}$	20.117
10 $\frac{1}{2}$	20.220
10 $\frac{5}{8}$	20.323
10 $\frac{3}{4}$	20.426
10 $\frac{7}{8}$	20.530
11	20.634
11 $\frac{1}{8}$	20.737
11 $\frac{1}{4}$	20.840
11 $\frac{3}{8}$	20.943
11 $\frac{1}{2}$	21.046
11 $\frac{5}{8}$	21.149
11 $\frac{3}{4}$	21.252
11 $\frac{7}{8}$	21.355
12	21.458

Fineness of Gold Karats

Karat	% Gold
6kt	25.0%
7kt	29.2%
8kt	33.3%
9kt	37.5%
10kt	41.7%
11kt	45.8%
12kt	50.0%

Karat	% Gold
13kt	54.2%
14kt	58.3%
15kt	62.5%
16kt	66.7%
17kt	70.8%
18kt	75.0%
19kt	79.2%

Karat	% Gold
20kt	83.3%
21kt	87.5%
22kt	91.7%
23kt	95.8%
24kt	100.0%