

| PARTICLE SIZE COMPARISON CHART | | | | |
|---------------------------------------|-----------------------|---------------|----------------------------|-------------------------------|
| Measurements | | | | Sieves |
| mm | um microns | Inches | Mils (.001 in.) | U.S. Sieve No. |
| 0.0000 | 0.0 | 0.00000 | 0.00 | |
| 0.0064 | 6.4 | 0.00025 | 0.25 | ~3000 |
| 0.0102 | 10.2 | 0.00040 | 0.40 | ~1800 |
| 0.0127 | 12.7 | 0.00050 | 0.50 | ~1200 |
| 0.0191 | 19.1 | 0.00075 | 0.75 | |
| 0.0203 | 20.3 | 0.00080 | 0.80 | ~1000 |
| 0.0254 | 25.4 | 0:00100 | 1.00 | ~800 |
| 0.0305 | 30.5 | 0.00120 | 1.20 | ~700 |
| 0.0318 | 31.8 | 0.00125 | 1.25 | ~600 |
| 0.0381 | 38.1 | 0.00150 | 1.50 | 400 |
| 0.0400 | 40.0 | 0.00157 | 1.57 | |
| 0.0406 | 40.6 | 0.00160 | 1.60 | |
| 0.0445 | 44.5 | 0.00175 | 1.75 | 325 |
| 0.0508 | 50.8 | 0.00200 | 2.00 | |
| 0.0533 | 53.3 | 0.00210 | 2.10 | 270 |
| 0.0572 | 57.2 | 0.00225 | 2.25 | |
| 0.0610 | 61.0 | 0.00240 | 2.40 | |
| 0.0635 | 63.5 | 0.00250 | 2.50 | 230 |
| 0.0699 | 69.9 | 0.00275 | 2.75 | |
| 0.0711 | 71.1 | 0.00280 | 2.80 | |
| 0.0737 | 73.7 | 0.00290 | 2.90 | 200 |
| 0.0762 | 76.2 | 0.00300 | 3.00 | |
| 0.0800 | 80.0 | 0.00315 | 3.15 | |
| 0.0813 | 81.3 | 0.00320 | 3.20 | |
| 0.0826 | 82.6 | 0.00325 | 3.25 | |
| 0.0889 | 88.9 | 0.00350 | 3.50 | 170 |
| 0.0914 | 91.4 | 0.00360 | 3.60 | |
| 0.0953 | 95.3 | 0.00375 | 3.75 | |
| 0.1016 | 101.6 | 0.00400 | 4.00 | |
| 0.1050 | 105.0 | 0.00413 | 4.13 | 140 |
| 0.1250 | 125.0 | 0.00492 | 4.92 | 120 |
| 0.1490 | 149.0 | 0.00587 | 5.87 | 100 |

| PARTICLE SIZE COMPARISON CHART | | | | |
|---------------------------------------|-----------------------|---------------|----------------------------|-------------------------------|
| Measurements | | | | Sieves |
| mm | um microns | Inches | Mils (.001 in.) | U.S. Sieve No. |
| 0.1490 | 149.0 | 0.00587 | 5.87 | 100 |
| 0.1600 | 160.0 | 0.00630 | 6.30 | |
| 0.1770 | 177.0 | 0.00697 | 6.97 | 80 |
| 0.2000 | 200.0 | 0.00787 | 7.87 | 70 |
| 0.2500 | 250.0 | 0.00984 | 9.84 | 60 |
| 0.2970 | 297.0 | 0.01170 | 11.70 | 50 |
| 0.3150 | 315.0 | 0.01240 | 12.40 | |
| 0.3540 | 354.0 | 0.01394 | 13.94 | 45 |
| 0.4000 | 400.0 | 0.01575 | 15.75 | |
| 0.4200 | 420.0 | 0.01654 | 16.54 | 40 |
| 0.5000 | 500.0 | 0.01969 | 19.69 | 35 |
| 0.5951 | 595.1 | 0.02343 | 23.43 | 30 |
| 0.6300 | 630.0 | 0.02480 | 24.80 | |
| 0.7070 | 707.0 | 0.02783 | 27.83 | 25 |
| 0.8000 | 800.0 | 0.03150 | 31.50 | |
| 0.8410 | 841.0 | 0.03311 | 33.11 | 20 |
| 1.0000 | 1000.0 | 0.03937 | 39.37 | 18 |
| 1.1900 | 1190.0 | 0.04685 | 46.85 | 16 |
| 1.2500 | 1250.0 | 0.04921 | 49.21 | |
| 1.4100 | 1410.0 | 0.05551 | 55.51 | 14 |
| 1.6800 | 1680.0 | 0.06614 | 66.14 | 12 |
| 2.0000 | 2000.0 | 0.07874 | 78.74 | 10 |
| 2.3800 | 2380.0 | 0.09370 | 93.70 | 8 |
| 2.8300 | 2830.0 | 0.11142 | 111.42 | 7 |
| 3.1500 | 3150.0 | 0.12402 | 124.02 | |
| 3.3600 | 3360.0 | 0.13228 | 132.28 | 6 |
| 4.0000 | 4000.0 | 0.15748 | 157.48 | 5 |
| 4.7600 | 4760.0 | 0.18740 | 187.40 | 4 |
| 5.0000 | 5000.0 | 0.19685 | 196.85 | |
| 5.6600 | 5660.0 | 0.22283 | 222.83 | 3.5 |
| 6.6800 | 6680.0 | 0.26299 | 262.99 | 3 |
| 8.0000 | 8000.0 | 0.31496 | 314.96 | 2.5 |

DIAMOND PIECES PER PARTICLE SIZE <SPHERES>

| mm | microns | Inches | Mils (.001 in.) | U.S. Sieve | Grams | Carats | Pieces/Gram | Pieces/Carats |
|--------|---------|---------|--------------------|---------------|--------------|--------------|-------------|---------------|
| 0.0381 | 38.1 | 0.00150 | 1.50 | 400 | 0.0000001014 | 0.0000005068 | 9866401.24 | 1973280.25 |
| 0.0400 | 40.0 | 0.00157 | 1.57 | | 0.0000001173 | 0.0000005864 | 8526164.87 | 1705232.97 |
| 0.0406 | 40.6 | 0.00160 | 1.60 | | 0.0000001226 | 0.0000006132 | 8153716.35 | 1630743.27 |
| 0.0445 | 44.5 | 0.00175 | 1.75 | 325 | 0.0000001615 | 0.0000008075 | 6192323.93 | 1238464.79 |
| 0.0508 | 50.8 | 0.00200 | 2.00 | | 0.0000002402 | 0.0000012012 | 4162388.02 | 832477.60 |
| 0.0533 | 53.3 | 0.00210 | 2.10 | 270 | 0.0000002775 | 0.0000013875 | 3603728.57 | 720745.71 |
| 0.0572 | 57.2 | 0.00225 | 2.25 | | 0.0000003430 | 0.0000017148 | 2915718.64 | 583143.73 |
| 0.0610 | 61.0 | 0.00240 | 2.40 | | 0.0000004160 | 0.0000020798 | 2404053.87 | 480810.77 |
| 0.0635 | 63.5 | 0.00250 | 2.50 | 230 | 0.0000004692 | 0.0000023462 | 2131142.67 | 426228.53 |
| 0.0699 | 69.9 | 0.00275 | 2.75 | | 0.0000006259 | 0.0000031294 | 1597725.52 | 319545.10 |
| 0.0711 | 71.1 | 0.00280 | 2.80 | | 0.0000006587 | 0.0000032934 | 1518185.71 | 303637.14 |
| 0.0737 | 73.7 | 0.00290 | 2.90 | 200 | 0.0000007336 | 0.0000036681 | 1363111.04 | 272622.21 |
| 0.0762 | 76.2 | 0.00300 | 3.00 | | 0.0000008108 | 0.0000040542 | 1233300.16 | 246660.03 |
| 0.0800 | 80.0 | 0.00315 | 3.15 | | 0.0000009383 | 0.0000046914 | 1065770.61 | 213154.12 |
| 0.0813 | 81.3 | 0.00320 | 3.20 | | 0.0000009848 | 0.0000049239 | 1015458.23 | 203091.65 |
| 0.0826 | 82.6 | 0.00325 | 3.25 | | 0.0000010328 | 0.0000051639 | 968263.49 | 193652.70 |
| 0.0889 | 88.9 | 0.00350 | 3.50 | 170 | 0.0000012876 | 0.0000064379 | 776655.49 | 155331.10 |
| 0.0914 | 91.4 | 0.00360 | 3.60 | | 0.0000013993 | 0.0000069964 | 714652.82 | 142930.56 |
| 0.0953 | 95.3 | 0.00375 | 3.75 | | 0.0000015862 | 0.0000079308 | 630456.31 | 126091.26 |
| 0.1016 | 101.6 | 0.00400 | 4.00 | | 0.0000019220 | 0.0000096099 | 520298.50 | 104059.70 |
| 0.1050 | 105.0 | 0.00413 | 4.13 | 140 | 0.0000021215 | 0.0000106073 | 471374.19 | 94274.84 |
| 0.1250 | 125.0 | 0.00492 | 4.92 | 120 | 0.0000035793 | 0.0000178964 | 279385.37 | 55877.07 |
| 0.1490 | 149.0 | 0.00587 | 5.87 | 100 | 0.0000060621 | 0.0000303106 | 164958.57 | 32991.71 |
| 0.1600 | 160.0 | 0.00630 | 6.30 | | 0.0000075063 | 0.0000375315 | 133221.33 | 26644.27 |
| 0.1770 | 177.0 | 0.00697 | 6.97 | 80 | 0.0000101622 | 0.0000508108 | 98404.26 | 19680.85 |
| 0.2000 | 200.0 | 0.00787 | 7.87 | 70 | 0.0000146608 | 0.0000733038 | 68209.32 | 13641.86 |
| 0.2500 | 250.0 | 0.00984 | 9.84 | 60 | 0.0000286343 | 0.0001431714 | 34923.17 | 6984.63 |
| 0.2970 | 297.0 | 0.01170 | 11.70 | 50 | 0.0000480104 | 0.0002400522 | 20828.80 | 4165.76 |
| 0.3150 | 315.0 | 0.01240 | 12.40 | | 0.0000572793 | 0.0002863967 | 17458.30 | 3491.66 |
| 0.3540 | 354.0 | 0.01394 | 13.94 | 45 | 0.0000812973 | 0.0004064865 | 12300.53 | 2460.11 |
| 0.4000 | 400.0 | 0.01575 | 15.75 | | 0.0001172860 | 0.0005864301 | 8526.16 | 1705.23 |
| 0.4200 | 420.0 | 0.01654 | 16.54 | 40 | 0.0001357732 | 0.0006788662 | 7365.22 | 1473.04 |
| 0.5000 | 500.0 | 0.01969 | 19.69 | 35 | 0.0002290743 | 0.0011453714 | 4365.40 | 873.08 |
| 0.5951 | 595.1 | 0.02343 | 23.43 | 30 | 0.0003862212 | 0.0019311062 | 2589.19 | 517.84 |
| 0.6300 | 630.0 | 0.02480 | 24.80 | | 0.0004582347 | 0.0022911734 | 2182.29 | 436.46 |
| 0.7070 | 707.0 | 0.02783 | 27.83 | 25 | 0.0006476264 | 0.0032381320 | 1544.10 | 308.82 |
| 0.8000 | 800.0 | 0.03150 | 31.50 | | 0.0009382882 | 0.0046914411 | 1065.77 | 213.15 |
| 0.8410 | 841.0 | 0.03311 | 33.11 | 20 | 0.0010900697 | 0.0054503487 | 917.37 | 183.47 |
| 1.0000 | 1000.0 | 0.03937 | 39.37 | 18 | 0.0018325942 | 0.0091629708 | 545.67 | 109.13 |
| 1.1900 | 1190.0 | 0.04685 | 46.85 | 16 | 0.0030882126 | 0.0154410628 | 323.81 | 64.76 |
| 1.2500 | 1250.0 | 0.04921 | 49.21 | | 0.0035792855 | 0.0178964274 | 279.39 | 55.88 |
| 1.4100 | 1410.0 | 0.05551 | 55.51 | 14 | 0.0051371665 | 0.0256858323 | 194.66 | 38.93 |
| 1.6800 | 1680.0 | 0.06614 | 66.14 | 12 | 0.0086894871 | 0.0434474357 | 115.08 | 23.02 |
| 2.0000 | 2000.0 | 0.07874 | 78.74 | 10 | 0.0146607533 | 0.0733037667 | 68.21 | 13.64 |
| 2.3800 | 2380.0 | 0.09370 | 93.70 | 8 | 0.0247057004 | 0.1235285021 | 40.48 | 8.10 |
| 2.8300 | 2830.0 | 0.11142 | 111.42 | 7 | 0.0415360895 | 0.2076804474 | 24.08 | 4.82 |
| 3.1500 | 3150.0 | 0.12402 | 124.02 | | 0.0572793342 | 0.2863966710 | 17.46 | 3.49 |
| 3.3600 | 3360.0 | 0.13228 | 132.28 | 6 | 0.0695158971 | 0.3475794857 | 14.39 | 2.88 |
| 4.0000 | 4000.0 | 0.15748 | 157.48 | 5 | 0.1172860267 | 0.5864301333 | 8.53 | 1.71 |
| 4.7600 | 4760.0 | 0.18740 | 187.40 | 4 | 0.1976456034 | 0.9882280171 | 5.06 | 1.01 |
| 5.0000 | 5000.0 | 0.19685 | 196.85 | | 0.2290742708 | 1.1453713542 | 4.37 | 0.87 |
| 5.6600 | 5660.0 | 0.22283 | 222.83 | 3.5 | 0.3322887159 | 1.6614435793 | 3.01 | 0.60 |
| 6.6800 | 6680.0 | 0.26299 | 262.99 | 3 | 0.5462553296 | 2.7312766481 | 1.83 | 0.37 |
| 8.0000 | 8000.0 | 0.31496 | 314.96 | 2.5 | 0.9382882133 | 4.6914410667 | 1.07 | 0.21 |

DIAMOND PIECES PER PARTICLE SIZE

< CUBES >

| mm | microns | Inches | Mils (.001 in.) | U.S. Sieve | Grams | Carats | Pieces/Grams | Pieces/Carats |
|--------|---------|---------|-----------------------|---------------|---------|---------|--------------|---------------|
| 0.0381 | 38.1 | 0.00150 | 1.50 | 400 | 0.00000 | 0.00000 | 5166031.25 | 1033206.25 |
| 0.0400 | 40.0 | 0.00157 | 1.57 | | 0.00000 | 0.00000 | 4464285.71 | 892857.14 |
| 0.0406 | 40.6 | 0.00160 | 1.60 | | 0.00000 | 0.00000 | 4269272.29 | 853854.46 |
| 0.0445 | 44.5 | 0.00175 | 1.75 | 325 | 0.00000 | 0.00000 | 3242290.49 | 648458.10 |
| 0.0508 | 50.8 | 0.00200 | 2.00 | | 0.00000 | 0.00000 | 2179419.43 | 435883.89 |
| 0.0533 | 53.3 | 0.00210 | 2.10 | 270 | 0.00000 | 0.00000 | 1886906.27 | 377381.25 |
| 0.0572 | 57.2 | 0.00225 | 2.25 | | 0.00000 | 0.00000 | 1526665.42 | 305333.08 |
| 0.0610 | 61.0 | 0.00240 | 2.40 | | 0.00000 | 0.00000 | 1258758.60 | 251751.72 |
| 0.0635 | 63.5 | 0.00250 | 2.50 | 230 | 0.00000 | 0.00000 | 1115862.75 | 223172.55 |
| 0.0699 | 69.9 | 0.00275 | 2.75 | | 0.00000 | 0.00001 | 836566.42 | 167313.28 |
| 0.0711 | 71.1 | 0.00280 | 2.80 | | 0.00000 | 0.00001 | 794919.51 | 158983.90 |
| 0.0737 | 73.7 | 0.00290 | 2.90 | 200 | 0.00000 | 0.00001 | 713722.67 | 142744.53 |
| 0.0762 | 76.2 | 0.00300 | 3.00 | | 0.00000 | 0.00001 | 645753.91 | 129150.78 |
| 0.0800 | 80.0 | 0.00315 | 3.15 | | 0.00000 | 0.00001 | 558035.71 | 111607.14 |
| 0.0813 | 81.3 | 0.00320 | 3.20 | | 0.00000 | 0.00001 | 531692.24 | 106338.45 |
| 0.0826 | 82.6 | 0.00325 | 3.25 | | 0.00000 | 0.00001 | 506981.15 | 101396.23 |
| 0.0889 | 88.9 | 0.00350 | 3.50 | 170 | 0.00000 | 0.00001 | 406655.52 | 81331.10 |
| 0.0914 | 91.4 | 0.00360 | 3.60 | | 0.00000 | 0.00001 | 374191.03 | 74838.21 |
| 0.0953 | 95.3 | 0.00375 | 3.75 | | 0.00000 | 0.00002 | 330105.88 | 66021.18 |
| 0.1016 | 101.6 | 0.00400 | 4.00 | | 0.00000 | 0.00002 | 272427.43 | 54485.49 |
| 0.1050 | 105.0 | 0.00413 | 4.13 | 140 | 0.00000 | 0.00002 | 246810.74 | 49362.15 |
| 0.1250 | 125.0 | 0.00492 | 4.92 | 120 | 0.00001 | 0.00003 | 146285.71 | 29257.14 |
| 0.1490 | 149.0 | 0.00587 | 5.87 | 100 | 0.00001 | 0.00006 | 86372.03 | 17274.41 |
| 0.1600 | 160.0 | 0.00630 | 6.30 | | 0.00001 | 0.00007 | 69754.46 | 13950.89 |
| 0.1770 | 177.0 | 0.00697 | 6.97 | 80 | 0.00002 | 0.00010 | 51524.31 | 10304.86 |
| 0.2000 | 200.0 | 0.00787 | 7.87 | 70 | 0.00003 | 0.00014 | 35714.29 | 7142.86 |
| 0.2500 | 250.0 | 0.00984 | 9.84 | 60 | 0.00005 | 0.00027 | 18285.71 | 3657.14 |
| 0.2970 | 297.0 | 0.01170 | 11.70 | 50 | 0.00009 | 0.00046 | 10905.93 | 2181.19 |
| 0.3150 | 315.0 | 0.01240 | 12.40 | | 0.00011 | 0.00055 | 9141.14 | 1828.23 |
| 0.3540 | 354.0 | 0.01394 | 13.94 | 45 | 0.00016 | 0.00078 | 6440.54 | 1288.11 |
| 0.4000 | 400.0 | 0.01575 | 15.75 | | 0.00022 | 0.00112 | 4464.29 | 892.86 |
| 0.4200 | 420.0 | 0.01654 | 16.54 | 40 | 0.00026 | 0.00130 | 3856.42 | 771.28 |
| 0.5000 | 500.0 | 0.01969 | 19.69 | 35 | 0.00044 | 0.00219 | 2285.71 | 457.14 |
| 0.5951 | 595.1 | 0.02343 | 23.43 | 30 | 0.00074 | 0.00369 | 1355.70 | 271.14 |
| 0.6300 | 630.0 | 0.02480 | 24.80 | | 0.00088 | 0.00438 | 1142.64 | 228.53 |
| 0.7070 | 707.0 | 0.02783 | 27.83 | 25 | 0.00124 | 0.00618 | 808.49 | 161.70 |
| 0.8000 | 800.0 | 0.03150 | 31.50 | | 0.00179 | 0.00896 | 558.04 | 111.61 |
| 0.8410 | 841.0 | 0.03311 | 33.11 | 20 | 0.00208 | 0.01041 | 480.33 | 96.07 |
| 1.0000 | 1000.0 | 0.03937 | 39.37 | 18 | 0.00350 | 0.01750 | 285.71 | 57.14 |
| 1.1900 | 1190.0 | 0.04685 | 46.85 | 16 | 0.00590 | 0.02949 | 169.55 | 33.91 |
| 1.2500 | 1250.0 | 0.04921 | 49.21 | | 0.00684 | 0.03418 | 146.29 | 29.26 |
| 1.4100 | 1410.0 | 0.05551 | 55.51 | 14 | 0.00981 | 0.04906 | 101.92 | 20.38 |
| 1.6800 | 1680.0 | 0.06614 | 66.14 | 12 | 0.01660 | 0.08298 | 60.26 | 12.05 |
| 2.0000 | 2000.0 | 0.07874 | 78.74 | 10 | 0.02800 | 0.14000 | 35.71 | 7.14 |
| 2.3800 | 2380.0 | 0.09370 | 93.70 | 8 | 0.04718 | 0.23592 | 21.19 | 4.24 |
| 2.8300 | 2830.0 | 0.11142 | 111.42 | 7 | 0.07933 | 0.39664 | 12.61 | 2.52 |
| 3.1500 | 3150.0 | 0.12402 | 124.02 | | 0.10940 | 0.54698 | 9.14 | 1.83 |
| 3.3600 | 3360.0 | 0.13228 | 132.28 | 6 | 0.13277 | 0.66383 | 7.53 | 1.51 |
| 4.0000 | 4000.0 | 0.15748 | 157.48 | 5 | 0.22400 | 1.12000 | 4.46 | 0.89 |
| 4.7600 | 4760.0 | 0.18740 | 187.40 | 4 | 0.37748 | 1.88738 | 2.65 | 0.53 |
| 5.0000 | 5000.0 | 0.19685 | 196.85 | | 0.43750 | 2.18750 | 2.29 | 0.46 |
| 5.6600 | 5660.0 | 0.22283 | 222.83 | 3.5 | 0.63463 | 3.17313 | 1.58 | 0.32 |
| 6.6800 | 6680.0 | 0.26299 | 262.99 | 3 | 1.04327 | 5.21636 | 0.96 | 0.19 |
| 8.0000 | 8000.0 | 0.31496 | 314.96 | 2.5 | 1.79200 | 8.96000 | 0.56 | 0.11 |

Christensen Diamond Sizes < Spheres >

| Christensen Size | INCHES | MICRONS | grams | carats | Pieces/gram | Pieces/carat |
|------------------|--------|---------|--------|--------|-------------|--------------|
| 20 | 0.177 | 4496 | 0.1666 | 0.8328 | 6.00 | 1.20 |
| 19 | 0.169 | 4292 | 0.1449 | 0.7245 | 6.90 | 1.38 |
| 18 | 0.161 | 4089 | 0.1253 | 0.6265 | 7.98 | 1.60 |
| 17 | 0.153 | 3886 | 0.1075 | 0.5377 | 9.30 | 1.86 |
| 16 | 0.146 | 3708 | 0.0934 | 0.4671 | 10.70 | 2.14 |
| 15 | 0.137 | 3480 | 0.0772 | 0.3862 | 12.95 | 2.59 |
| 14 | 0.13 | 3302 | 0.0660 | 0.3299 | 15.16 | 3.03 |
| 13 | 0.122 | 3098 | 0.0545 | 0.2724 | 18.35 | 3.67 |
| 12 | 0.144 | 2896 | 0.0445 | 0.2226 | 22.47 | 4.49 |
| 11 | 0.106 | 2692 | 0.0358 | 0.1788 | 27.97 | 5.59 |
| 10 | 0.098 | 2490 | 0.0283 | 0.1415 | 35.35 | 7.07 |
| 9 | 0.091 | 2311 | 0.0226 | 0.1131 | 44.21 | 8.84 |
| 8 | 0.083 | 2107 | 0.0171 | 0.0857 | 58.34 | 11.67 |
| 7 | 0.077 | 1956 | 0.0137 | 0.0686 | 72.92 | 14.58 |
| 6 | 0.071 | 1803 | 0.0107 | 0.0537 | 93.10 | 18.62 |
| 5 | 0.065 | 1651 | 0.0082 | 0.0412 | 121.25 | 24.25 |
| 4 | 0.059 | 1499 | 0.0062 | 0.0309 | 162.01 | 32.40 |
| 3 | 0.055 | 1397 | 0.0050 | 0.0250 | 200.14 | 40.03 |
| 2 | 0.051 | 1295 | 0.0040 | 0.0199 | 251.26 | 50.25 |
| 1 | 0.049 | 1245 | 0.0035 | 0.0177 | 282.76 | 56.55 |
| A | 0.047 | 1194 | 0.0031 | 0.0156 | 320.57 | 64.11 |
| B | 0.045 | 1143 | 0.0027 | 0.0137 | 365.42 | 73.08 |
| C | 0.043 | 1092 | 0.0024 | 0.0119 | 419.05 | 83.81 |
| D | 0.041 | 1041 | 0.0021 | 0.0103 | 483.71 | 96.74 |
| E | 0.039 | 991 | 0.0018 | 0.0089 | 560.68 | 112.14 |
| F | 0.036 | 914 | 0.0014 | 0.0070 | 714.65 | 142.93 |