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INCH/METRIC TAP DRILL SIZES & DECIMAL EQUIVALENTS

| FRACTION OR DRILL SIZE | DECIMAL EQUIVALENT | TAP SIZE | FRACTION OR DRILL SIZE | DECIMAL EQUIVALENT | TAP SIZE | FRACTION OR DRILL SIZE | DECIMAL EQUIVALENT | TAP SIZE | FRACTION OR DRILL SIZE | DECIMAL EQUIVALENT | TAP SIZE | METRIC TAP DRILL SIZES | | |
|------------------------|--------------------|----------|------------------------|--------------------|----------|------------------------|--------------------|----------|------------------------|--------------------|----------|------------------------|--------------|-----------------------|
| | | | | | | | | | | | | METRIC TAP | TAP DRILL MM | DECIMAL EQUIV. Inches |
| NUMBER SIZE DRILLS 80 | .0135 | | 39 | .0995 | | 15/64 | .2344 | | 19/32 | .5938 | | M1.6x 0.35 | 1.25 | .0492 |
| 79 | .0145 | | 38 | .1015 | 5-40 | LETTER SIZE DRILLS B | .2380 | | 39/64 | .6094 | | M1.8 x 0.35 | 1.45 | .0571 |
| 1/64 | .0156 | | 37 | .1040 | 5-44 | C | .2420 | | 41/64 | .6250 | | M2.2 x 0.45 | 1.75 | .0689 |
| 78 | .0160 | | 36 | .1065 | 6-32 | D | .2460 | | 43/64 | .6562 | 3/4-10 | M2.5 x 0.45 | 2.05 | .0807 |
| 77 | .0180 | | 7/64 | .1094 | | 1/4 - E | .2500 | | 45/64 | .7031 | 3/4-16 | M3 x 0.5 | 2.50 | .0984 |
| 76 | .0200 | | 35 | .1100 | | F | .2570 | 5/16-18 | 47/64 | .7344 | | M3.5 x 0.6 | 2.90 | .1142 |
| 75 | .0210 | | 34 | .1110 | | G | .2610 | | 49/64 | .7656 | | M4 x 0.7 | 3.30 | .1299 |
| 74 | .0225 | | 33 | .1130 | 6-40 | 17/64 | .2656 | | 51/64 | .7969 | | M4.5 x 0.75 | 3.70 | .1457 |
| 73 | .0240 | | 32 | .1160 | | H | .2660 | | 53/64 | .8281 | | M5 x 0.8 | 4.20 | .1654 |
| 72 | .0250 | | 31 | .1200 | | I | .2720 | 5/16-24 | 55/64 | .8594 | | M6 x 1 | 5.00 | .1968 |
| 71 | .0260 | | 1/8 | .1250 | | J | .2770 | | 57/64 | .8906 | | M7 x 1 | 6.00 | .2362 |
| 70 | .0280 | | 30 | .1285 | | K | .2810 | | 59/64 | .9219 | 7/8-9 | | | |
| 69 | .0292 | | 29 | .1360 | 8-32,36 | 9/32 | .2812 | | 61/64 | .9531 | | | | |
| 68 | .0310 | | 28 | .1405 | | L | .2900 | | 63/64 | .9844 | | | | |
| | .0312 | | 9/64 | .1406 | | M | .2950 | | 1 | 1.0000 | 7/8-14 | M8 x 1.25 | 6.70 | .2638 |
| 67 | .0320 | | 27 | .1440 | | N | .2969 | | 1 3/64 | 1.0469 | | M8 x 1 | 7.00 | .2756 |
| 66 | .0330 | | 26 | .1470 | | O | .3020 | 3/8-16 | 1 7/64 | 1.1094 | | M10 x 1.5 | 8.50 | .3346 |
| 65 | .0350 | | 25 | .1495 | 10-24 | 5/16 | .3125 | | 1 11/64 | 1.1719 | | M10 x 1.25 | 8.70 | .3425 |
| 64 | .0360 | | 24 | .1520 | | P | .3230 | | 1 1/32 | 1.2188 | 1-8 | | | |
| 63 | .0370 | | 23 | .1540 | | Q | .3281 | | 1 7/32 | 1.2812 | | M12 x 1.75 | 10.20 | .4016 |
| 62 | .0380 | | 5/32 | .1562 | | R | .3320 | 3/8-24 | 1 1/16 | 1.2500 | | M12 x 1.25 | 10.80 | .4252 |
| 61 | .0390 | | 22 | .1570 | | S | .3390 | | 1 1/8 | 1.2500 | | M14 x 2 | 12.00 | .4724 |
| 60 | .0400 | | 21 | .1590 | 10-32 | 11/32 | .3438 | | 1 1/4 | 1.2500 | 1-12 | M14 x 1.5 | 12.50 | .4921 |
| 59 | .0410 | | 20 | .1610 | | T | .3480 | | 1 19/64 | 1.2969 | | M16 x 2 | 14.00 | .5512 |
| 58 | .0420 | | 19 | .1660 | | U | .3580 | | 1 11/32 | 1.3438 | | M16 x 1.5 | 14.50 | .5709 |
| 57 | .0430 | | 18 | .1695 | | V | .3594 | | 1 27/64 | 1.4219 | 1 1/8-7 | M18 x 2.5 | 15.50 | .6102 |
| 56 | .0465 | | 11/64 | .1719 | | W | .3680 | 7/16-14 | 1 1/2 | 1.5000 | | M18 x 1.5 | 16.50 | .6496 |
| 55 | .0469 | 0-80 | 17 | .1730 | | X | .3680 | | | | 1 1/8-12 | M20 x 2.5 | 17.50 | .6890 |
| 54 | .0520 | | 16 | .1770 | 12-24 | 3/8 | .3750 | | | | 1 1/4-7 | M20 x 1.5 | 18.50 | .7283 |
| 53 | .0550 | | 15 | .1800 | | V | .3770 | | | | | M22 x 2.5 | 19.50 | .7677 |
| 52 | .0595 | 1-64,72 | 14 | .1820 | 12-28 | W | .3860 | | | | | M22 x 1.5 | 20.50 | .8071 |
| 51 | .0625 | | 13 | .1850 | | X | .3906 | 7/16-20 | | | | M24 x 3 | 21.00 | .8268 |
| 50 | .0635 | | 3/16 | .1875 | | Y | .4040 | | | | | M24 x 2 | 22.00 | .8661 |
| 49 | .0670 | | 12 | .1890 | | Z | .4130 | | | | | M27 x 3 | 24.00 | .9449 |
| 48 | .0700 | 2-56,64 | 11 | .1910 | | | .4219 | 1/2-13 | | | | M27 x 2 | 25.00 | .9843 |
| 47 | .0730 | | 10 | .1935 | | | .4299 | | | | | | | |
| 46 | .0760 | | 9 | .1960 | | | .4375 | 1/2-20 | | | | | | |
| 45 | .0781 | 3-48 | 8 | .1990 | | | .4531 | | | | | | | |
| 44 | .0810 | | 7 | .2010 | 1/4-20 | | .4688 | | | | | | | |
| 43 | .0820 | 3-56 | 13/64 | .2031 | | | .4844 | 9/16-12 | | | | M30 x 3.5 | 26.50 | 1.0433 |
| 42 | .0860 | | 6 | .2040 | | | .5000 | | | | | M30 x 2 | 28.00 | 1.1024 |
| 41 | .0880 | 4-40 | 5 | .2055 | | | .5156 | 9/16-18 | | | | M33 x 3.5 | 29.50 | 1.1614 |
| 40 | .0935 | 4-48 | 4 | .2090 | | | .5312 | 5/8-11 | | | | M33 x 2 | 31.00 | 1.2205 |
| | .0938 | | 3 | .2130 | 1/4-28 | | .5469 | | | | | M36 x 4 | 32.00 | 1.2598 |
| 3/32 | .0938 | | 7/32 | .2188 | | | .5625 | | | | | M36 x 3 | 33.00 | 1.2598 |
| 41 | .0960 | | 2 | .2210 | | | .5781 | 5/8-18 | | | | M39 x 4 | 35.00 | 1.3780 |
| 40 | .0980 | | 1 | .2280 | | | | | | | | M39 x 3 | 36.00 | 1.4173 |
| | | | LETTER SIZE DRILLS A | .2340 | | | | | | | | | | |

| PIPE THREAD SIZES (NPSC) | | | |
|--------------------------|-------|--------------|--------|
| THREAD | DRILL | THREAD | DRILL |
| 1/8-27 | 11/32 | 1 1/2-11 1/2 | 13/4 |
| 1/4-18 | 7/16 | 2-11 1/2 | 27/32 |
| 3/8-18 | 37/64 | 2 1/2-8 | 221/32 |
| 1/2-14 | 23/32 | 3-8 | 31/4 |
| 3/4-14 | 59/64 | 3 1/2-8 | 33/4 |
| 1-11 1/2 | 15/32 | 4-8 | 41/4 |
| 1 1/4-11 1/2 | 11/2 | | |

1mm = .0394 inches
 °C = (°F-32) 5/9
 °F = (9/5 x °C) + 32

GUIDE TO PLASTIC STOCK SHAPES

| Plastic Material | Shape Availability | | Machinability Rating 1-10 1=Easy | Serv Temp Long/Short Degrees F | Characteristics / Attributes |
|----------------------|--------------------|--------------------|--|--------------------------------------|---|
| | Rod Dia | Sheet Thickness | | | |
| ULTRACOMP UC200 | Tubing | 1/8 to 3 | 3 | 266/360 | High Load / Impact-Vibration Resistant / Composite |
| ULTRACOMP UC300 | Tubing | 1/8 to 3 | 3 | 266/360 | Lowest Friction / Chemical Resistant / High load |
| ULTRACOMP UC400 | Tubing | 1/8 to 3 | 3 | 335/360 | Moly lubricant / Slow rotary / Salt water applications |
| ULTRACOMP UC500 | Tubing | 1/8 to 3 | 3 | 335/360 | Bearing Grade Blended Fiber / Graphite Composite |
| ABS | 3/16 to 8 | 1/4 to 4 | 1 | 140/210 | General Purpose / Economical / Machinable / Moldable |
| ACETAL / DELRIN | 1/8 to 12 | 1/4 to 3 | 1 | 180 | Machinable / Good Wear / FDA / USDA |
| ACETRON | 1/16 to 9 | 1/32 to 4-1/2 | 1 | 180 | Co-polymer Acetal / Machinable / Economical |
| ACRYLIC | 1/16 to 6 | 1/32 to 3 | 5 | 140/200 | Optically Clear / Colors / Machinable / Formable |
| CELAZOLE / PBI | 3/8 to 4 | 1/2 to 1-1/2 | 8 | 600/1000 | Highest Temp / Chemically Resistant / High PV |
| CPVC | 1/4 to 13-3/4 | 3/32 to 4 | 1 | 200 | Weldable / Economical / Chemical Resistant / High Temp |
| DELIN 500CL | 1/2 to 3 | 1/4 to 4 | 1 | 122/300 | Chemically Lubricated Acetal / Low Friction |
| DELIN AF | 1/4 to 6 | 1/4 to 2 | 1 | 185/300 | PTFE Filled Acetal / Low Friction / Brown |
| ERTALYTE | 3/8 to 8 | 1/4 to 4 | 1 | 210 | PET / Economical / Good Wear / FDA / White |
| FEP | 1/16 to 6 | .005 to 3 | 3 | 400 | Fluoropolymer / Excellent Chemical Resistance |
| FLUOROSINT 207 / 500 | 1/2 to 8-3/4 | 1/4 to 3 | 3 | 500 | Mica Filled PTFE / High Thermal Stability / FDA |
| HYDEX 4101 & 4101L | 1/2 to 6 | 3/8 to 4 | 1 | 245/350 | PBT / PTFE Filled / FDA-USDA / Low Friction / White |
| HYDEX FGA | 1/2 to 4 | 3/8 to 2 | 1 | 185/300 | PTFE Filled Acetal / FDA / USDA / Low Friction |
| HYDLAR ZF | 1/4 to 5 | 1/4 to 2 | 5 | 210/355 | Aramid Fiber Filled Nylon / Wear Resistant |
| KYNAR / PVDF | 1/4 to 10 | 1/4 to 4 | 2 | 285/340 | Fluoropolymer / Excellent Chemical Resistance |
| MELDIN | 1 to 4-3/4 | 3/8 to 2 | 7 | 600 | High Temp / Wear Resistance / High PV / Low Outgas |
| MICARTA C & L | 1/32 to 10 | 1/32 to 8 | 8 | 250 | Phenolic Resin / Cloth Fabric Matrix / Laminate |
| MICARTA G-10 & G-11 | 1/32 to 5 | .005 to 5 | 10 | 300 | Epoxy / Woven Fiberglass Matrix / Laminate |
| MICARTA XXX | 1/32 to 2 | 1/32 to 5 | 8 | 250 | Phenolic Resin / Paper Matrix / Laminate |
| NORYL EN265 | 3/8 to 8 | 1/4 to 4 | 2 | 220/230 | PPO & Styrene Alloy / Good Creep Resistance |
| NYLATRON | 1/32 to 2 | .010 to 4 | 1 | 200 | Filled Nylon Type 66 / Impact & Wear / Cast Type 6 |
| NYLON 66 | 1/32 to 6 | .010 to 3 | 1 | 210 | Economical / Good Wear / High Impact Strength |
| PCTFE / KEL-F | 1/16 to 6 | .005 to 2 | 3 | 500 | Chemical Resistant / Heat Resistant / High Temp |
| PEEK | 1/4 to 4 | 1/4 to 2-1/2 | 5 | 480 | Autoclavable / Chemical & Steam Resistant |
| PFA | 1/16 to 3 | .002 to 3 | 3 | 500 | Chemical Resistant / Heat Resistant / High Temp |
| POLYCARBONATE | 1/32 to 15 | 1/32 to 4 | 3 | 250 | Good Machinability / Transparent / High Rigidity |
| POLYETHYLENE | 1/32 to 18 | .002 to 10 | 1 | 140/175 | General Purpose / Economical / Chemical Resistant |
| POLYPROPYLENE | 1/4 to 16 | .010 to 10 | 1 | 160/230 | Chemically Resistant / Weldable / Economical |
| POLYSULFONE / UDEL | 3/16 to 8 | 1/4 to 4 | 1 | 325/340 | Autoclavable / Chemically Resistant / Heat Resistant |
| PTFE - EXT & MOLDED | 1 to 38 | .001 to 12 | 3 | 550 | Unfilled Teflon / Inert / High Temp / Insulator / White |
| PTFE - GLASS FILLED | 1/4 to 12 | 1/4 to 4 | 5 | 550 | Filled PTFE / High V / High Temp / Chemical Resistant |
| PTFE - TUBING | .034 to 12 | N/A | N/A | 550 | Roll Covers / Spaghetti / Shrinkable / AWG Sizes |
| PVC | 1/4 to 13-3/4 | 3/32 to 4 | 1 | 165 | Weldable / Economical / Chemical Resistant |
| RADEL R | 1/4 to 6 | 1/4 to 3 | 3 | 300 | Autoclavable / Chemically Resistant / Impact Resistant |
| REXOLITE | 1/16 to 9 | 1/32 to 6 | 3 | 212 | Crosslinked Polystyrene / High Frequency Dielectric |
| RULON 123 | 3/16 to 13 | .010 to 2 | 3 | 550 | Filled PTFE / FDA / USDA / High V / Inert / Black |
| RULON 142 | N/A | .015 to 1/4 | 1 | 550 | Filled PTFE / Machine Ways / Expansion Slides |
| RULON 488 | 3/16 to 12 | .015 to 1 | 3 | 550 | Filled PTFE / High V / Inert / Dryer Bearings / Green |
| RULON 641 | 3/16 to 12 | .015 to 1 | 3 | 550 | Filled PTFE / FDA / USDA / High V / Inert / White |
| RULON J | 3/16 to 13 | .010 to 4 | 3 | 550 | Filled PTFE / Low Friction / Non Abrasive / Gold |
| RULON LR / AR | 3/16 to 13 | .010 to 4 | 5 | 550 | Filled PTFE / Good Strength / High V / Inert / Maroon |
| TECHTRON / PPS | 1/4 to 4 | 1/4 to 2 | 4 | 425 | Chemical Resistant / High Temp / High Strength |
| TEFZEL / ETFE | 1/16 to 3-3/4 | .030 to 3 | 3 | 300/350 | Fluoropolymer / Excellent Chemical Resistance |
| TFM | 1 to 12 | .010 to 4 | 3 | 500 | Fluoropolymer / Low Porosity / High Temperature |
| TORLON 4203 / 4301 | 1/4 to 2 | 3/16 to 1 | 5 | 500 | High Temp / High Strength / Electrical & Bearing Grade |
| UHMW | 1/4 to 10 | .005 to 7 | 5 | 180 | High Abrasion Resistance / Low Friction / FDA |
| UHMW / OIL FILLED | 1/4 to 8 | 1/8 to 2 | 3 | 180 | Lowest Friction / High Abrasion Resistance |
| ULTEM 1000 | 1/8 to 6 | .002 to 2-1/2 | 5 | 340 | High Strength / Autoclavable / Chemical Resistance |
| ULTEM 2300 | 1/2 to 6 | 3/8 to 2 | 8 | 340 | High Strength / Rigid / Autoclavable / Thermally Stable |
| VHMW | N/A | 1/8 to 3/4 | 5 | 160 | Good Abrasion Resistance / Low Friction / Economical |