

Materials & Conversions

Toggles
 Rockers
 Pushbuttons
 Illuminated PB
 Programmable
 Keylocks
 Rotaries
 Slides
 Tactiles
 Tilt
 Touch
 Indicators
 Accessories
 Supplement Z

PLASTICS

| Specific Name | Acronym or Abbreviation | Generic Name |
|---|-------------------------|--|
| Acrylonitrile butadiene styrene | ABS | Shatterproof thermoplastic composed of styrene and acrylic resin; ABS provides resilience, shiny appearance, and stable base for metal plating |
| Carbon blended polyamide | | Polyamide blended with carbon for antistatic property |
| Carbon composite polyacetal | | Polyacetal |
| Diallyl phthalate | DAP | Diallyl phthalate; a thermosetting resin |
| Ethylene Propylene Terpolymer | EPT | Ozone resistant plastic |
| Glass fiber reinforced diallyl phthalate | GFR DAP | Diallyl phthalate |
| Glass fiber reinforced polyamide | GFR PA | Polyamide |
| Glass fiber reinforced polybutylene terephthalate | GFR PBT | Polyester |
| Liquid crystal polymer | LCP | Liquid crystal polymer |
| Nitrile butadiene rubber | NBR | NBR; mainly used where oil-proof is required |
| Phenolic resin | | Phenol plus aldehydes; used extensively as thermosetting plastic |
| Polyacetal | | Polyacetal |
| Polyamide | PA | Nylon 6/6; Polyamide; always a nylon resin |
| Polybutylene terephthalate | PBT | Polyester |
| Polycarbonate | PC | Lexan; Polycarbonate; damaged by trichloroethylene solvent and so changes to polyamide |
| Polyethylene | PE | Polyethylene |
| Polyphenylene sulfide | PPS | Polyphenylene sulfide |
| Polyoxymethylene | POM | Polyoxymethylene |
| Polypropylene | PP | Polypropylene; more elastic than polycarbonate |
| Polyvinyl chloride | PVC | Polyvinyl chloride; loses pliability below 0°C (32°F) |
| Resin | | Polymer |
| Silicone | | Silicone |

ELEMENTS

| | | | | | |
|-----------|----------|-----------|----------|-----------|------|
| Ag | silver | Cr | chromium | Pb | lead |
| Al | aluminum | Cu | copper | Sn | tin |
| Au | gold | Ni | nickel | Zn | zinc |

TEMPERATURE

| | | °C | °F | °C | °F |
|--|---|-----|-----|------|------|
| Fahrenheit Thermometric scale with fixed points marked 32°F for freezing point and 212°F for boiling of water. Celsius International thermometric scale with fixed points marked 0°C for freezing point and 100°C for boiling of water. | $(\text{Fahrenheit} - 32) \times .555 = \text{Celsius}$ $(\text{Celsius} \times 1.8) + 32 = \text{Fahrenheit}$ | -40 | -40 | 0 | +32 |
| | | -30 | -22 | +50 | +122 |
| | | -25 | -13 | +55 | +131 |
| | | -20 | -4 | +70 | +158 |
| | | -10 | +14 | +85 | +185 |
| | | | | +100 | +212 |

LINEAR DIMENSIONS

| | Fraction | Inch | Millimeter | Fraction | Inch | Millimeter |
|--------------------------------|----------|------|------------|----------|------|------------|
| Formulas for Conversion | | .100 | 2.54 | | .394 | 10.0 |
| millimeter x .03937 = inch | | .150 | 3.81 | 15/32 | .469 | 11.9 |
| inch x 25.4 = millimeter | | .197 | 5.0 | | .472 | 12.0 |
| | | .236 | 6.0 | 1/2 | .500 | 12.7 |
| | 1/4 | .250 | 6.35 | | | |

FORCE

Formulas for Conversions

| | | | | |
|----------------|---|-----------|---|----------------|
| ounce•force | x | .2780139 | = | newton |
| pound-force | x | 4.4482220 | = | newton |
| kilogram-force | x | 9.8066500 | = | newton |
| newton | x | .1019716 | = | kilogram-force |
| newton | x | .2248089 | = | pound-force |
| newton | x | 3.5969420 | = | ounce•force |

TORQUE

Formulas for Conversions

| | | | | | | |
|--------------|---|----------|---|----------------|---|-------|
| kg/cm | x | 2.2046 | x | .3937 | = | lb/in |
| newton•meter | x | .7375621 | = | pound-foot | | |
| newton•meter | x | .1019716 | = | kilogram-meter | | |
| newton•meter | x | 141.6119 | = | ounce-inch | | |
| newton•meter | x | 8.8507 | = | pound-inch | | |
| pound-foot | x | 1.355818 | = | newton•meter | | |

PLATING THICKNESS

| | |
|--|---|
| Micron | 1 micron = 1 thousandth of 1 millimeter |
| One millionth of a meter; a micrometer | 1 micron ÷ .0254 = 39.37 millionths of an inch |
| | Example: 3 microns ÷ .0254 = 118.11 millionths of an inch |

WEIGHT

| | |
|---------------------------|------------------------------|
| 1 gram = .03527 ounce | 1 ounce = 31.10348 grams |
| 1 kilogram = 35.27 ounces | 1 ounce = .03110348 kilogram |
| 1 kilogram = 2.2 pounds | 1 pound = .4539 kilogram |