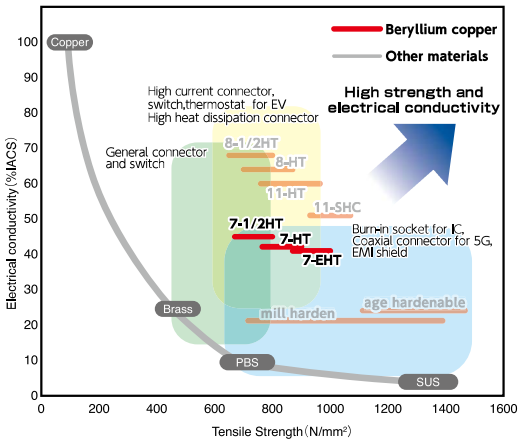
# Mechanical Properties of Midrange Material

## Alloy 7




## Properties of Strip

| Alloy | Temper | Designation [5] | Tensile test [1] | | | Hardness test [2] | Electrical conductivity [3] (%IACS) |
|---|---|---|---|---|---|---|---|
| | | | Tensile strength (N/mm²) | Yield strength 0.2% offset (N/mm²) | Elongation (%) | Vickers hardness HV | |
| 7 | 1/2HT | $BeCu^{P}_{R}$07-1/2HT | 670-800 [4] | 550-760 | min. 10 | 195-250 | min. 38 |
| | HT | $BeCu^{P}_{R}$07-HT | 765-900 [4] | 686-834 | min. 8 | 220-275 | min. 33 |
| | EHT | $BeCu^{P}_{R}$07-EHT | 870-1000 [4] | 750-930 | min. 4 | 250-310 | min. 30 |

1) Values are applicable to thickness 0.1 mm and over. 2) Values are applicable to thickness 0.1mm and over. 3) Electrical conductivity is for design guidance only.
4) The upper limits of tensile strength are for design guidance only. 5) P and R in column "Designation" represent "strip cut to length" and "strip in coils".

## Tolerances

### Thickness tolerance of Alloy 7

Standard thickness iz onry available for Alloy 7. (mm)

| Specified thickness | Tolerance |
|---|---|
| 0.08 | ±0.006 |
| 0.10 | ±0.006 |
| 0.12 | ±0.006 |
| 0.15 | ±0.008 |
| 0.18 | ±0.010 |
| 0.20 | ±0.010 |
| 0.25 | ±0.010 |
| 0.30 | ±0.015 |
| 0.35 | ±0.015 |
| 0.40 | ±0.015 |

### Width tolerance (mm)

| Thickness \ Specified width | Tolerance | | |
|---|---|---|---|
| | Strip cut to length | Strip in coils | |
| | max. 200 | max. 100 | Over 100 up to and including 200 |
| from 0.08 up to 0.40 | +2 −0 | ±0.1 | ±0.2 |

note) When the tolerance is specified either plus or minus side only,the same range of tolerance shall be applied.

### Length tolerance (mm)

| Specified thickness \ Specified length | | Tolerance |
|---|---|---|
| From | Up to and including | max. 1000 |
| 0.08 | 0.4 | +10 − 0 |

### Camber tolerance (mm)

| Specified width | | Maximum value |
|---|---|---|
| Over | Up to and including | Over 1000 length |
| from 4 | 13 | 4 |
| 13 | 50 | 3 |
| 50 | 100 | 2 |
| 100 | 200 | 1 |