

| Material Designation | |
|----------------------|--------|
| GB | T2 |
| UNS (ASTM) | C11000 |
| JIS | C1100 |

| Chemical Composition | |
|----------------------|-----------|
| Cu | ≥ 99.90 % |
| Fe | ≤ 0.005% |
| Pb | ≤ 0.005% |
| S | ≤ 0.005% |

Typical Applications

- Main material for general electrical applications
- Stamped parts
- Transformer coils
- Cable strip
- Heat sinks

| Process performance | |
|---------------------------|---------------|
| Excellent cold processing | Excellent |
| plating | Excellent |
| Hot tin plating | excellent |
| Soft soldering | good. |
| Resistance welding | less suitable |
| Gas protection welding | less suitable |

| Physical properties (room temperature) | |
|--|----------------------------|
| Conductivity | 97 %IACS. |
| Thermal conductivity | 388 W/(m.K) |
| The thermal expansion coefficient | 17.64 10 ⁻⁶ /K. |
| The density | 8.89 g/cm ³ |
| Elastic modulus | 115 GPa. |
| Specific heat capacity | 0.386 J/(g.K) |
| Poisson's ratio | 0.34 |

| Mechanical Properties | | | | | | | |
|-----------------------|---------------------|-------|-------|---------|---------|---------|-------|
| Temper | | R | M | Y4 | Y2 | Y | T |
| Tensile Strength | R _m MPa | ≥ 205 | ≥ 205 | 215-275 | 245-345 | 290-380 | ≥ 350 |
| Elongation | A _{50mm} % | ≥ 30 | ≥ 30 | ≥ 25 | ≥ 8 | ≥ 3 | — |
| Hardness | HV h _v | - | ≤ 70 | 60-90 | 80-110 | 90-120 | ≥ 110 |

R: Thickness 4-14mm
Others : Thickness 0.3-1.0mm

| Thickness Width | Thickness tolerance (mm) Cold rolled | | | | | | | | |
|--------------------|--------------------------------------|----------|-----------|------------|------------|------------|------------|------------|------------|
| | ≤400 | >400-700 | >700-1000 | >1000-1250 | >1250-1500 | >1500-1750 | >1750-2000 | >2000-2500 | >2500-3000 |
| 0.2-0.3 | 0.02 | 0.025 | | | | | | | |
| >0.3-0.4 | 0.025 | 0.03 | | | | | | | |
| >0.4-0.5 | 0.03 | 0.04 | | | | | | | |
| >0.5-0.8 | 0.035 | 0.05 | 0.08 | | | | | | |
| >0.8-1.2 | 0.04 | 0.06 | 0.09 | | | | | | |
| >1.2-2.0 | 0.05 | 0.08 | 0.1 | | | | | | |
| >2.0-3.0 | 0.06 | 0.1 | 0.12 | | | | | | |
| ≥3.0-5.0 | 0.08 | 0.12 | 0.15 | 0.2 | 0.25 | 0.35 | 0.4 | 0.5 | 0.6 |
| >5.0-8.0 | 0.11 | 0.16 | 0.2 | 0.23 | 0.3 | 0.4 | 0.45 | 0.7 | 0.8 |
| >8.0-12.0 | 0.15 | 0.2 | 0.25 | 0.3 | 0.35 | 0.5 | 0.6 | 0.8 | 1 |

| Thickness width | Thickness tolerance (mm) Hot rolled | | | | | |
|--------------------|-------------------------------------|-----------|------------|------------|------------|------------|
| | ≤500 | >500-1000 | >1000-1500 | >1500-2000 | >2000-2500 | >2500-3000 |
| 4.0-6.0 | 0.20 | 0.22 | 0.28 | 0.40 | | |
| >6.0-8.0 | 0.23 | 0.25 | 0.35 | 0.45 | | |
| >8.0-12.0 | 0.30 | 0.35 | 0.45 | 0.60 | 1.00 | 1.30 |
| >12.0-16.0 | 0.35 | 0.45 | 0.55 | 0.70 | 1.10 | 1.40 |
| >16.0-20.0 | 0.40 | 0.50 | 0.70 | 0.80 | 1.20 | 1.50 |
| >20.0-25.0 | 0.45 | 0.55 | 0.80 | 1.00 | 1.30 | 1.80 |
| >25.0-30.0 | 0.55 | 0.65 | 1.00 | 1.10 | 1.60 | 2.00 |
| >30.0-40.0 | 0.70 | 0.85 | 1.25 | 1.30 | 2.00 | 2.70 |
| >40.0-50.0 | 0.90 | 1.10 | 1.50 | 1.60 | 25.00 | 3.50 |
| >50.0-60.0 | | 1.30 | 2.00 | 2.20 | 3.00 | 4.30 |