C17200 / CuBe2
COPPER BERYLLIUM (1.8%)

BENEFITS
- Excellent for anti-galling concerns
- Excellent machinability
- Low friction properties
- Excellent corrosion and erosion resistance
- Non-magnetic
- Multiple tempers
- Able to anneal and re-age
- Moderate electrical and thermal conductivity

Rod, Tube, Wire, Plate & Strip

This Copper-Beryllium alloy gets its strength from “Precipitation Heat Treating” as well as Hot and Cold working and it is the “King” of all high strength Copper alloys. C17200 product has the best of all worlds when it comes to engineering requirements. Its superiority in strength, ductility, corrosion resistance, conductivity, anti-galling, machine-ability and formability rival most any other alloy. C17200 is utilized in most every marketplace were rigorous demands and high performance is required.

BUSBY METALS
- The Trusted Name in Copper Alloys
## C17200 / CuBe2
### COPPER BERYLLIUM (1.8%)  

<table>
<thead>
<tr>
<th>Style</th>
<th>Temper</th>
<th>Size inches</th>
<th>Tensile Strength Ksi (Mpa)</th>
<th>Yield Strength 0.05% UL Ksi (Mpa)</th>
<th>Elong %</th>
<th>Hardness Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rod, Bar &amp; Tube</td>
<td>A</td>
<td>0.25 - 5.25</td>
<td>60 - 85 (413 - 586)</td>
<td>20 - 35 (137 - 241)</td>
<td>20 - 60</td>
<td>845 - 85</td>
</tr>
<tr>
<td></td>
<td>H</td>
<td>0.25 - 2.5</td>
<td>85 - 130 (586 - 896)</td>
<td>75 - 105 (517 - 723)</td>
<td>8 - 30</td>
<td>888 - 103</td>
</tr>
<tr>
<td></td>
<td>AT</td>
<td>0.375 - 7.062</td>
<td>165 - 200 (1,075 - 1,516)</td>
<td>130 - 175 (896 - 1,206)</td>
<td>3 - 10</td>
<td>C36 - 40</td>
</tr>
<tr>
<td></td>
<td>HT</td>
<td>0.312 - 2.5</td>
<td>175 - 225 (1,206 - 1,551)</td>
<td>145 - 200 (999 - 1,516)</td>
<td>2 - 9</td>
<td>C37 - 45</td>
</tr>
<tr>
<td></td>
<td>OA</td>
<td>0.375 - 3.75</td>
<td>130 Min (896 Min)</td>
<td>100 Min (689 Min)</td>
<td>10 Min</td>
<td>C30 - 36</td>
</tr>
</tbody>
</table>

### Chemistry

<table>
<thead>
<tr>
<th></th>
<th>CU</th>
<th>NI + CO</th>
<th>AL</th>
<th>BE</th>
<th>SI</th>
<th>NI + CO + FE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remainder</td>
<td>0.2 - 0.35</td>
<td>0.1 Max</td>
<td>1.8 - 2.0</td>
<td>0.15 Max</td>
<td>0.6 Max</td>
<td></td>
</tr>
</tbody>
</table>

### Product / Property

- **Coefficient of Thermal Expansion (70 - 400°F)**: $9 \times 7 \times 10^6$
- **Density**: 0.302
- **Electrical Conductivity % IACS**: 15 - 28
- **Electrical Resistivity microhm-cm @ 68°F**: 46.2
- **Melting Point Liquid US**: 1,800°F (982°C)
- **Melting Point Solid US**: 1,600°F (871°C)
- **Modulus of Elasticity in Tension 10^6 Psi**: 19
- **Thermal Conductivity Btu-in/hr-ft²-°F**: 20 - 60

### End Product | Specification

- **Plate**: ASTM-B-194
- **Rod**: ASTM-B-196, QQ-C, AMS 4530, AMS 4533, AMS 4650, AMS 4651, QQ-C-530, ASNA 3400, AMS MIL-H-7199, NF L-14709, ASNA 3417G, ASNA 3384, BMS-7-353
- **Wire, Hard Drawn**: ASTM-B-197
- **Tube**: ASTM-B-643, AMS 4535, DMS 1904, DMS 2088
- **Wire**: AMS 4725

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