# C64200 Silicon Aluminum Bronze

## Chemical Composition

<table>
<thead>
<tr>
<th>Element</th>
<th>Cu&lt;sup&gt;(1,2)&lt;/sup&gt;</th>
<th>Pb</th>
<th>Sn</th>
<th>Zn</th>
<th>Fe</th>
<th>Ni&lt;sup&gt;(3)&lt;/sup&gt;</th>
<th>Al</th>
<th>As</th>
<th>Mn</th>
<th>Si</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max (%)</td>
<td>Rem</td>
<td>0.05</td>
<td>0.20</td>
<td>0.50</td>
<td>0.30</td>
<td>0.25</td>
<td>7.6</td>
<td>0.09</td>
<td>0.10</td>
<td>2.2</td>
</tr>
</tbody>
</table>

(1) Cu value includes Ag.
(2) Cu + Sum of Named Elements 99.5% min.
(3) Ni value includes Co.

## Mechanical Properties*

<table>
<thead>
<tr>
<th>Form</th>
<th>Temper Code</th>
<th>Tensile Strength (ksi)</th>
<th>YS-0.5% Ext (ksi)</th>
<th>Elongation (%)</th>
<th>Rockwell B scale</th>
<th>Shear Strength (ksi)</th>
<th>Fatigue Strength** (ksi)</th>
<th>Section Size (in)</th>
<th>Cold Work (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bar</td>
<td>M30</td>
<td>75 Typ</td>
<td>35 Typ</td>
<td>32 Typ</td>
<td>77 Typ</td>
<td></td>
<td></td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>Forgings</td>
<td>M10</td>
<td>79 Typ</td>
<td>38 Typ</td>
<td>30 Typ</td>
<td>78 Typ</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M30</td>
<td>75 Typ</td>
<td>35 Typ</td>
<td>32 Typ</td>
<td>77 Typ</td>
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<td></td>
<td>0.75</td>
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</tr>
<tr>
<td></td>
<td>H04</td>
<td>102 Typ</td>
<td>68 Typ</td>
<td>22 Typ</td>
<td>94 Typ</td>
<td>59 Typ</td>
<td>50 Typ</td>
<td>0.75</td>
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<tr>
<td>Rod</td>
<td>H04</td>
<td>93 Typ</td>
<td>60 Typ</td>
<td>26 Typ</td>
<td>90 Typ</td>
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<td>1.5</td>
<td>10</td>
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<tr>
<td></td>
<td>O50</td>
<td>90 Typ</td>
<td>55 Typ</td>
<td>28 Typ</td>
<td>89 Typ</td>
<td></td>
<td></td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>O50</td>
<td>92 Typ</td>
<td>58 Typ</td>
<td>22 Typ</td>
<td>98 Typ</td>
<td></td>
<td></td>
<td>0.5</td>
<td></td>
</tr>
</tbody>
</table>

* Measured at room temperature, 68°F (20°C).
** Fatigue Strength: 100 x 10<sup>6</sup> cycles, unless indicated as [N] x 10<sup>6</sup>.