**PHOS BRONZE C WELDING WIRE**

**NOMINAL COMPOSITION:**
- Phosphorus: 0.010-0.35 %
- Lead: 0.02 % max.
- Copper: Balance
- Others: .50 % max.
- Tin: 7.0-9.0 %
- Zinc: 0.20 % max
- Iron: 0.10 % max

**PHYSICAL PROPERTIES:**
- Solidus: 1620 °F (882 °C)
- Liquidus: 1880 °F (1027 °C)
- Yield Strength: 35,000 psi
- Tensile Strength: 66,000 psi
- Elongation: 45 %
- Brinell Hardness: 90-100 HB

**APPLICATION:**
Used to weld base metals of steel, cast iron, copper, brass, and bronze, and it is the ideal overlay on shafts, propellers, housings, couplings, bushings, valve seats, pumps, and other surfaces needing a bronze wearing surface.

**RECOMMENDED WELDING PARAMETERS:**

*GMAW (MIG) Parameters (DC Reverse Polarity) Electrode Positive Spray transfer*

<table>
<thead>
<tr>
<th>Wire Diameter</th>
<th>Amps</th>
<th>Volts</th>
<th>Argon (cfh)</th>
<th>Wire Feed (ipm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>.030</td>
<td>130-140</td>
<td>25-26</td>
<td>25</td>
<td>340-450</td>
</tr>
<tr>
<td>.035</td>
<td>140-160</td>
<td>26-27</td>
<td>30</td>
<td>280-400</td>
</tr>
<tr>
<td>.045</td>
<td>165-185</td>
<td>27-28</td>
<td>30</td>
<td>200-300</td>
</tr>
<tr>
<td>1/16</td>
<td>285-335</td>
<td>28-30</td>
<td>40</td>
<td>150-210</td>
</tr>
</tbody>
</table>

*GTAW (Tig) Parameters (DCSP) ² Electrode negative or ACHF*

<table>
<thead>
<tr>
<th>Material</th>
<th>2%Thoriated ²</th>
<th>Filler Wire Size</th>
<th>Amps (DC)</th>
<th>Amps (AC)</th>
<th>Gas Cup</th>
<th>Argon (cfh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/16&quot;</td>
<td>1/16&quot;</td>
<td>1/16&quot;</td>
<td>100-120</td>
<td>100-120</td>
<td>3/8-1/2</td>
<td>15</td>
</tr>
<tr>
<td>3/16&quot;</td>
<td>1/8&quot;</td>
<td>3/32&quot;-1/8&quot;</td>
<td>300-350</td>
<td>255-300</td>
<td>7/16-1/2</td>
<td>20</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>3/16&quot;</td>
<td>1/8&quot;</td>
<td>615-640</td>
<td>440-185</td>
<td>1/2</td>
<td>25</td>
</tr>
</tbody>
</table>

*All parameters are suggested as basic guidelines and will vary depending on joint design, number of passes and other factors.*

**SPECIFICATION COMPLIANCE:**
ANSI/AWS A5.7 & AMSE SFA A5.7 ERCuSn-C CDA 521

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WARNING: PROTECT yourself and others. Read and understand this information.

FUMES AND GASES can be hazardous to your health.

ARC RAYS can injure eyes and burn skin.

ELECTRIC SHOCK can KILL.

- Before use, read and understand the manufacturer’s instructions, Material Safety Data Sheets (MSDS), and your employer’s safety practices.
- Keep your head out of fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases from your breathing zone and the general area.
- Wear correct eye, ear, and body protection.
- Do not touch live electrical parts.

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