Copper and Copper Alloy Bare Wire

Alloy: ERCU
Class: ERCU

Conforms to Certification: AWS – A5.7
ASME SFA A5.7

Copper
Alloy ERCU
Weld Process: Gas Metal Arc (Mig) – Gas Tungsten Arc (Tig)

AWS Chemical Composition Requirements

Cu + Ag = 98.0 min
Sn = 1.0 max
Mn = 0.50 max
Si = 0.50 max
P = 0.15 max
Al = 0.01 max
Pb = 0.02 max
Other = 0.50 max

(Deposited) Chemical Composition % (Typical)

Dependent on weld process

Application

This weld material is used to fabricate deoxidized copper and repair weld copper castings. Both the gas metal arc and gas tungsten arc weld processes can be used. Can also be used to weld galvanized steel and deoxidized copper to weld steel where high strength joints are not required.

Recommended Welding Parameters

<table>
<thead>
<tr>
<th>Process</th>
<th>Diameter of Wire</th>
<th>Voltage (V)</th>
<th>Amperage (A)</th>
<th>Gas</th>
<th>Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tig - GTAW (DCEN)</td>
<td>1/16 inches x 36</td>
<td>70 – 120</td>
<td>100% Helium or 100% Argon</td>
<td>40 - 55 CFH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3/32 inches x 36</td>
<td>120 – 160</td>
<td>100% Helium or 100% Argon</td>
<td>40 - 55 CFH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1/8 inches x 36</td>
<td>170 – 230</td>
<td>100% Helium or 100% Argon</td>
<td>40 - 55 CFH</td>
<td></td>
</tr>
<tr>
<td>MIG - GMAW (DCEP)</td>
<td>.035 inches</td>
<td>20 – 26</td>
<td>100% Argon or 75% Argon, 25% Helium</td>
<td>45 - 55 CFH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.045 inches</td>
<td>22 – 28</td>
<td>100% Argon or 75% Argon, 25% Helium</td>
<td>45 - 55 CFH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1/16 inches</td>
<td>29 – 32</td>
<td>100% Argon or 75% Argon, 25% Helium</td>
<td>45 - 55 CFH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3/32 inches</td>
<td>32 – 34</td>
<td>100% Argon or 75% Argon, 25% Helium</td>
<td>45 - 55 CFH</td>
<td></td>
</tr>
</tbody>
</table>

Preheat / Interpass Recommendations

Preheating copper – base alloys is frequently unnecessary provided section thicknesses are not unusually heavy.
Preheat and Interpass temperatures will vary depending on section thickness, selected weld process and other variables.

If additional information is needed Contact Weldwire Company, Inc. 800-523-1266