4043 ALUMINUM
Welding wire

ALLOY DESCRIPTION AND APPLICATION;
4043 is a 5% silicon aluminum filler recommended for welding of 3003, 3004, 5052, 6061, 6063, and cast alloy such as 443, 355, 356 and 214.

TYPICAL GMAW WELDING PROCEDURES; DCEP

<table>
<thead>
<tr>
<th>Wire Diameter</th>
<th>Amps</th>
<th>Volts</th>
<th>Travel speed (ipm)</th>
<th>Argon (cfh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.030</td>
<td>60-175</td>
<td>15-24</td>
<td>25-45</td>
<td>25-30</td>
</tr>
<tr>
<td>0.035</td>
<td>70-185</td>
<td>15-27</td>
<td>25-40</td>
<td>30-35</td>
</tr>
<tr>
<td>3/64</td>
<td>125-260</td>
<td>20-29</td>
<td>24-35</td>
<td>35-45</td>
</tr>
<tr>
<td>1/16</td>
<td>170-300</td>
<td>24-30</td>
<td>28-38</td>
<td>45-55</td>
</tr>
<tr>
<td>3/32</td>
<td>275-400</td>
<td>26-31</td>
<td>14-20</td>
<td>60-75</td>
</tr>
</tbody>
</table>

TYPICAL GTAW WELDING PROCEDURES; ACHF with Pure or Ziconiated Hemisphere shape tungsten tip

<table>
<thead>
<tr>
<th>Filler Wire Size</th>
<th>Tungsten</th>
<th>Amps</th>
<th>Volts</th>
<th>Gas Cup Size</th>
<th>Argon (cfh)</th>
<th>Base thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/16”</td>
<td>1/16”</td>
<td>60-80</td>
<td>15</td>
<td>3/8”</td>
<td>20</td>
<td>1/16”</td>
</tr>
<tr>
<td>3/32”</td>
<td>3/32”</td>
<td>125-160</td>
<td>15</td>
<td>3/8”</td>
<td>20</td>
<td>1/8”</td>
</tr>
<tr>
<td>1/8”</td>
<td>1/8”</td>
<td>190-220</td>
<td>15</td>
<td>7/16”</td>
<td>20</td>
<td>3/16”</td>
</tr>
<tr>
<td>5/32”</td>
<td>5/32”</td>
<td>200-300</td>
<td>15</td>
<td>1/2”</td>
<td>25</td>
<td>1/4”</td>
</tr>
<tr>
<td>1/4”</td>
<td>1/4”</td>
<td>400-450</td>
<td>25</td>
<td>5/8”</td>
<td>25</td>
<td>1/2”</td>
</tr>
</tbody>
</table>

Procedures are base on flat position and may vary with change in position, base metals, filler metals, equipment and other changes.

TYPICAL CHEMISTRY AND PROPERTIES;

<table>
<thead>
<tr>
<th>Silicon</th>
<th>Iron</th>
<th>Copper</th>
<th>Manganese</th>
<th>Magnesium</th>
<th>Zinc</th>
<th>Titanium</th>
<th>Beryllium</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5-6.0</td>
<td>0.80</td>
<td>0.30</td>
<td>0.05</td>
<td>0.05</td>
<td>0.10</td>
<td>0.20</td>
<td>0.0008</td>
</tr>
</tbody>
</table>

Aluminum Remainder and others each 0.50 & total 0.15 All values are maximum percentage unless noted

Solidus:1065°F Liquidus:1170°F Density: 0.097 lbs./cu. In. Anodize color: Gray Average Tensile Strength All weld metal (as welded) 29,000 psi (200 mpa)

AVAILABLE SIZES: TA 4043 = Spools of .023, .030, .035, .040, 3/64, 1/16
TB 4043 = Cut lengths of .023, .030, .035, 3/64, 1/16, 5/64, 3/32, 1/8, 5/32, 3/16, 1/4

SPECIFICATIONS; ANSI/AWS A5.10 ER/ R 4043
ASME SFA5.10 ER/ R 4043
AMS 4190

Other sizes available – please inquire

WASHINGTON ALLOY’S Quality Management System is Certified to ISO 9001:2008 Cert # 05-R0925

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