AMS7912 Fatigue Supplement
Mark Svilar

**Keywords:** AlBeMet® 162, HIP, Hot Isostatic Press, Density

**MATERIAL PROCESS DESCRIPTION:**
AlBeMet® 162H is Hot Isostatically Pressed (HIP) from prealloyed gas atomized powder and then annealed at 1100 °F for 24 hours. AMS 7911 covers this material.

**SUMMARY:**
Typical, minimum, and maximum density are given in Table 1.

**Table 1 - AlBeMet® 162 Density**

<table>
<thead>
<tr>
<th>Density</th>
<th>g/cm³</th>
<th>lbs/inch³</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical</td>
<td>2.10</td>
<td>0.0776</td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>2.071</td>
<td>0.0748</td>
<td>AMS7911</td>
</tr>
<tr>
<td>Maximum</td>
<td>2.122</td>
<td>0.0767</td>
<td>AMS7911</td>
</tr>
</tbody>
</table>

**MATERIAL:**
 Specification: AMS 7911
Material: Data is from 5 standard production lot of AlBeMet® 162 HIP'ed.

**TEST INFORMATION:**
Test Specifications: APMI – MPIF 42 and ASTM B311
Specimen Information: Not Determined

**Comments:**
The density is governed by the chemistry (i.e., Be : Al ratio) and voids. All wrought forms of AlBeMet® 162 are density tested prior and post annealing to ensure quality.

**DATA SOURCES:**
AMS7911
Materion Beryllium & Composites internally developed data.

**HEALTH AND SAFETY**
Handling AlBeMet® in solid form poses no special health risk. Like many industrial materials, beryllium-containing materials may pose a health risk if recommended safe handling practices are not followed. Inhalation of airborne beryllium may cause a serious lung disorder in susceptible individuals. The Occupational Safety and Health Administration (OSHA) has set mandatory limits on occupational respiratory exposures. Read and follow the guidance in the Material Safety Data Sheet (MSDS) before working with this material. For additional information on safe handling practices or technical data on AlBeMet®, contact Materion Beryllium & Composites.

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