Aluminum alloys

Category:
high strength, high modulus
elevated temperature

Aluminum-alloy Al-7SiC15, A356-SiC15

Aluminum alloy Al-7SiC15 and A356-SiC15 are high strength Aluminum alloys processed via spray forming. This special spray forming process was tailor made to make large parts up to 3.500 mm diameter. It is possible to produce large billets and rings with very uniform particle distribution and homogenous microstructure. The mechanical properties are excellent. The particle content could be changed from 0-30%

General properties
- High strength
- Excellent temperature stability
- High fatigue strength

Chemical Composition: A7075+15%SiC, A356+15%SiC

Mechanical properties

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<tr>
<th></th>
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<th>Elong.</th>
<th>E-Modulus</th>
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<td>%</td>
<td>GPa</td>
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<td>Al-7SiC15</td>
<td>680</td>
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Applications
- Fan cases
- Automotive structural parts
- Airframe application
- Landing gear application
- Wear resistant application

Delivery form
- Billets, Rings, Plates, Bars, Extrusions

Comparison with Standard alloys A7075, A356
- Advantages: Higher strength, High temp. prop.
- Disadvantages: Machining more difficult

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