Titanium Alloy  
**Ti6242**  
Ti-6Al-2Sn-4Zr-2Mo

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**SPECIFICATIONS**

WL: 3.7144  
UNS: R54620

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**COMPOSITION**

<table>
<thead>
<tr>
<th>Element</th>
<th>Content (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>6.00</td>
</tr>
<tr>
<td>Tin</td>
<td>2.00</td>
</tr>
<tr>
<td>Zirconium</td>
<td>2.00</td>
</tr>
<tr>
<td>Molybdenum</td>
<td>2.00</td>
</tr>
<tr>
<td>Titanium</td>
<td>Base</td>
</tr>
</tbody>
</table>

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**TYPICAL MECHANICAL PROPERTIES**

- Heat treated condition:
  - Tensile test at ambient temperature:
    - UTS: 1000 N/mm²  
    - 0.2 % Yield strength: 940 N/mm²  
    - Elongation (5d): 15%
  - Tensile test at 480°C:
    - UTS: 680 N/mm²  
    - 0.2 % Yield strength: 520 N/mm²  
    - Elongation (5d): 18%

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**APPLICATIONS**

- Compressor discs - hot area. Impellers

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**CHARACTERISTICS**

- Alpha-beta titanium alloy.
HEAT TREATMENT

• This alloy is generally delivered in the heat treated condition.

PHYSICAL PROPERTIES

• Density: 4.54

• Mean coefficient of expansion in m/m.°C:
  - between 20°C and 400°C: $7.7 \times 10^{-6}$

• Thermal conductivity in W.m/m².°C:
  - at 20°C: 6.92

• Critical points:
  - Beta Transus: 996°C

Contact:
www.aubertduval.com

The data provided in this document represent typical or average values rather than maximum or minimum guaranteed values. The applications indicated for the grades described are given as guidance only in order to help the reader in his personal assessment. Please note that these do not constitute a guarantee whether implicit or explicit as to whether the grade selected is suited to specific requirements. Aubert & Duval’s liability shall not under any circumstances extend to product selection or to the consequences of that selection.