A-286
Technical Datasheet

Precipitation Hardening Stainless Steel

Typical Applications
• Aerospace
• Gas turbines
• Jet engine blades
• Afterburner parts
• Exhaust parts
• Turbine wheels
• manifold components
• Screws

Key features
• High temperature strength
• Good corrosion resistance
• Used at high temperatures for lower stress applications
• High tensile strength
• Oxidation resistance

Availability
Bar and forgings

Product Description
A-286 is an age-hardenable, iron-nickel-chromium superalloy. The alloy combines high tensile strength with high temperature strength and good corrosion resistance. A-286 is used throughout the aerospace and oil and gas sector and can be used to produce products such as afterburner parts, jet engines and turbine components.

Corrosion resistance
Good

Formability
Good but work hardens rapidly and may require intermediate annealing in deep drawing or in forming intricate parts

Chemical Composition (weight %)

<table>
<thead>
<tr>
<th></th>
<th>C</th>
<th>Mn</th>
<th>Si</th>
<th>P</th>
<th>S</th>
<th>Al</th>
<th>Cr</th>
<th>Ni</th>
<th>Mo</th>
<th>Ti</th>
<th>V</th>
<th>B</th>
<th>Cu</th>
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<tbody>
<tr>
<td>min</td>
<td>0.08</td>
<td>2.00</td>
<td>1.00</td>
<td>0.04</td>
<td>0.03</td>
<td>0.35</td>
<td>13.00</td>
<td>24.00</td>
<td>1.00</td>
<td>1.90</td>
<td>0.10</td>
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<tr>
<td>max</td>
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<td>0.03</td>
<td>0.35</td>
<td>16.00</td>
<td>27.00</td>
<td>1.50</td>
<td>235</td>
<td>0.50</td>
<td>0.01</td>
<td>0.30</td>
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Mechanical Properties

<table>
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<tr>
<th>Condition</th>
<th>0.2% Proof Stress N/mm²</th>
<th>Tensile Strength N/mm²</th>
<th>Elongation N/mm²</th>
<th>Hardness Brinell HB</th>
<th>ROA % min</th>
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<tbody>
<tr>
<td>Solution Annealed</td>
<td>720</td>
<td>1000</td>
<td>15</td>
<td>250-355</td>
<td>25</td>
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<tr>
<td>Precipitation Aged</td>
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</table>

Technical Assistance
Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

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