BS S98
Technical Datasheet

Product Description
BS S98 aerospace steel bar is suitable for applications where tensile and yield strength requirements are higher than S96 and S97. The material is a particularly suitable where surface pressure exists. Classed as a high hardenability steel, S98 aerospace bar (which is an equivalent of EN26), offer a combination of high strength and toughness and works well in high temperature service applications. The alloy is used in a wide range of industry applications including aerospace, motorsport and oil & gas.

Typical Applications
• Hydraulic shafts
• Torsion bars
• Axles
• Connecting rods
• Sockets
• Spindles

Availability
Bar

Key Features
• Hardenability steel
• Higher tensile and yield strength when compared to S96 & S97
• Good creep resistance and toughness
• Supplied annealed and bright annealed
• Wide range of applications

Chemical Composition (weight %)

<table>
<thead>
<tr>
<th>Weight (%)</th>
<th>C</th>
<th>Si</th>
<th>Mn</th>
<th>P</th>
<th>S</th>
<th>Cr</th>
<th>Mo</th>
<th>Ni</th>
<th>Al</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min</td>
<td>0.36</td>
<td>0.10</td>
<td>0.45</td>
<td>0.50</td>
<td>0.50</td>
<td>0.05</td>
<td>0.45</td>
<td>2.3</td>
<td>0.015</td>
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<tr>
<td>Max</td>
<td>0.44</td>
<td>0.35</td>
<td>0.70</td>
<td>0.025</td>
<td>0.20</td>
<td>0.80</td>
<td>0.65</td>
<td>2.8</td>
<td>0.050</td>
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</table>

Mechanical Properties

<table>
<thead>
<tr>
<th>Grade</th>
<th>Treatment</th>
<th>Tensile Strength (Rm) (min)</th>
<th>Proof Stress Rp 0.2 (min)</th>
<th>Elongation (%) (min)</th>
<th>Hardness (HB) 277 max</th>
<th>Hardness (HV) 341-388</th>
<th>Hardness (HV) 360-410</th>
</tr>
</thead>
<tbody>
<tr>
<td>3S98</td>
<td>Solution Annealed</td>
<td>75-85 tons / sq in</td>
<td>65 tons / sq in</td>
<td>10</td>
<td>341-388</td>
<td>360-410</td>
<td></td>
</tr>
<tr>
<td>2S98D</td>
<td>Hardened &amp; Tempered</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</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.

www.smithmetal.com  sales@smithmetal.com

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