BS S144D
Technical Datasheet

Stainless Steel Bar


Typical Applications
- Aerospace components
- Military components
- High technology applications
- Automotive components
- Industrial bearings
- Precision parts

Product Description
S144D is a precipitation hardening stainless steel with high strength and moderate to good corrosion resistance. The alloy has an identical chemical composition when compared to S143 but a higher tensile strength is achieved as a result of heat treatment.

Corrosion Resistance
Moderate to good

Key Features:
- High strength alloy
- Heat treated for added tensile strength
- Identical chemical composition to S143 but greater strength alloy
- Moderate to good corrosion resistance

Related Specifications
- BS 3S 144
- 104594
- X5CrNiMoCuNb14 5
- S145

Product Description
S144D is a precipitation hardening stainless steel with high strength and moderate to good corrosion resistance. The alloy has an identical chemical composition when compared to S143 but a higher tensile strength is achieved as a result of heat treatment.

Chemical Composition (weight %)

<table>
<thead>
<tr>
<th>Weight (%)</th>
<th>C</th>
<th>Cr</th>
<th>Cu</th>
<th>Mn</th>
<th>Mo</th>
<th>Nb</th>
<th>Ni</th>
<th>P</th>
<th>S</th>
<th>Si</th>
<th>Fe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min</td>
<td>13.2</td>
<td>1.2</td>
<td>1.2</td>
<td>0.1</td>
<td>5.0</td>
<td>5.0</td>
<td>Bal</td>
<td>Bal</td>
<td>Bal</td>
<td>Bal</td>
<td>Bal</td>
</tr>
<tr>
<td>Max</td>
<td>0.07</td>
<td>14.7</td>
<td>2.0</td>
<td>1.0</td>
<td>2.0</td>
<td>0.4</td>
<td>5.8</td>
<td>0.035</td>
<td>0.025</td>
<td>0.6</td>
<td>Bal</td>
</tr>
</tbody>
</table>

Mechanical Properties

| Ultimate Tensile Strength (UTS) | 1130 to 1330 MPa |
| 0.2% Proof Stress | 1030 MPa |
| Elongation | 12% (min) |
| Brinell Hardness | 352 to 401 HB |

Availability
Bar

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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