EN3B Technical Datasheet

Engineering Steel

Applications
- Shafts & rollers
- Machinery parts
- Threaded bars
- Spindles & axles
- Low stress engineering applications

Key features:
- Suitable for low stress engineering applications
- Can be case hardened
- Good for general machining
- For general engineering use
- Good weldability

Product Description
EN3B is a general engineering steel which is suitable in applications where heavy stresses and heat treatment are not involved. It is a bright drawn / turned mild steel with good machinability but poor hardenability, and is used in a variety of general engineering applications. EN3B can be case hardened and is normally used in the supplied condition. The material promotes good weldability characteristics.

Weldability
Good.

Machinability
Good general machining

Related material specifications
- British BS 970:1991 070M20
- Swedish SS 1370
- German DIN CK20
- American SAE 1021
- French AFNOR XC18
- European Standard EN10083-1
- European Steel No. 1.1151
- European Steel Name C22E

Availability
Round bar, flat bar, square bar, hexagon, sheet and plate

Chemical Composition (weight %)

<table>
<thead>
<tr>
<th></th>
<th>C</th>
<th>Mn</th>
<th>Si</th>
<th>P</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>min.</td>
<td>0.16</td>
<td>0.50</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>max.</td>
<td>0.24</td>
<td>0.90</td>
<td>0.35</td>
<td>0.05</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Mechanical Properties (cold drawn condition)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Tensile Strength MPa min.</th>
<th>Yield Strength MPa min.</th>
<th>Elongation %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold drawn</td>
<td>560</td>
<td>440</td>
<td>10</td>
</tr>
<tr>
<td>Turned &amp; Polished</td>
<td>430</td>
<td>215</td>
<td>21</td>
</tr>
</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.

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