Material Specification Sheet
Alloy Cast Steel

A Cr-Mo alloyed material with a high amount of well distributed carbides in a pearlitic matrix.
The amount of carbide increases with increased carbon content.
This material will give good wear resistance but with lower strength and is ideal for section rolling where deep grooves are required.

### Chemical Composition

<table>
<thead>
<tr>
<th></th>
<th>C</th>
<th>Mn</th>
<th>Si</th>
<th>P</th>
<th>S</th>
<th>Ni</th>
<th>Cr</th>
<th>Mo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min</td>
<td>1.60</td>
<td>0.60</td>
<td>0.40</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.50</td>
<td>0.00</td>
</tr>
<tr>
<td>Max</td>
<td>2.40</td>
<td>1.40</td>
<td>1.20</td>
<td>0.100</td>
<td>0.100</td>
<td>0.80</td>
<td>1.30</td>
<td>0.60</td>
</tr>
</tbody>
</table>

### Physical Properties

- **Tensile Strength** (tensile test rod B12x60 DIN 50125) 450 to 500 MPa
- **Bending Strength** (Bending test 10 at DIN 50110) 600 to 1000 MPa
- **Impact strength** (ISO-V Test piece, DIN 50115) 1.5 to 2.5 J
- **Percentage elongation** (after fracture) < 1 %
- **Alternating tensile - compression strength** 150 to 220 MPa

### Microstructure

100 X - Normalised

100 X - Quenched

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**Hardness Curve**

![Hardness Curve](image)

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**SARCO**