Steel properties
- Cold work tool steel, good wear resistance, medium toughness

DIN · Material · No.
1.2360

Code
X48CnMoV8-1-1

Comparable standards
Chipper

Chemical composition

<table>
<thead>
<tr>
<th>Element</th>
<th>C</th>
<th>Si</th>
<th>Mn</th>
<th>Cr</th>
<th>Mo</th>
<th>V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical</td>
<td>0.50</td>
<td>1.05</td>
<td>0.45</td>
<td>8.00</td>
<td>1.50</td>
<td>0.52</td>
</tr>
</tbody>
</table>

Physical properties
- Thermal conductivity W/(m K) 20°C: 26
- Coefficient of linear thermal expansion $10^{-6} \, ^\circ \text{C}^{-1}$:
  - 20-100: 13.1
  - 20-200: 13.9
  - 20-300: 13.8
  - 20-400: 14.1
  - 20-500: 14.3
  - 20-600: 14.6
  - 20-700: 14.7
  - 20-800°C:

Applications
- Severely stressed machine blades for cellulose and paper ind., woodworking milling cutters, flat and circular blades for cutting 5 to 15 mm thick sheet/plate.

Stress Relieving
- Holding at approx 650°C for one hour.

Heat treatment
- Soft annealing C
- Cooling:
  - 820 · 880 · furnace · max. 250
  - Hardening from C
  - Hardness after quenching HRC:
  - 1000 · 1040 · oil, air · 57

Tempering

Time - Temperature - Transformation - Diagram

Tempering Diagram

Usbco Steels Pvt Ltd