42CrMo4 is a steel for quenching and tempering, which has a good combination of strength and toughness in the quenched and tempered condition. After the oil quenching, the steel will be through hardened up to ø60 mm bar diameter. The microstructure of larger dimensions is not fully martensite. The steel is applicable to induction hardening. The surface hardness will exceed min. 53 HRC. 42CrMo4 can be delivered M-treated in order to optimize the machinability.

Variant 6082 is offered under the name MoC410M
Variant 6115 conform with SAE 4140 and ISO 898 Grade 10.9 up to 60 mm bar diameter
Variant 6137 conform with L7 ASTM A320 and ISO 898 Grade 10.9 up to 50 mm bar diameter
Variant SB9288 is offered under the name SB42CrMo4
Variant SB9287 with a slightly increased hardenability, is offered under the name SB42CrMo4.

Variant 327S is a continuous cast variant with slightly increased hardenability, similar to the ingot casted variant 327A
Variant 327A is an ingot cast variant with slightly increased hardenability.

Variant 326C is a BQ-steel variant which fulfils SAE 4140 standard but has a restricted sulphur content for improved cleanliness and a lower maximum allowed phosphorus content for improved mechanical properties

BQ-Steel®

BQ-steel® is a bearing quality clean steel optimized for fatigue strength and is also ideal for new design solutions outside the bearing industry.

For additional Heat Treatment Data, please visit the Heat Treatment Guide.

Similar designations
AISI 4140, 42CD4(AFNOR), 708M40(B.S.), SS 2244, SS142244, SAE 4140H, ASTM A193 B7, 41Cr4, 42CrMoS4, 1.7225
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<th>Mn %</th>
<th>P %</th>
<th>S %</th>
<th>Cr %</th>
<th>Ni %</th>
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## Mechanical Properties

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<th>Dimension [mm]</th>
<th>Yield strength min [MPa]</th>
<th>Tensile strength [MPa]</th>
<th>Elongation A [%]</th>
<th>Reduction of area Z [%]</th>
<th>Hardness</th>
<th>Impact (ISO-V) strength [min]</th>
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Heat treatment recommendations

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<th>Temperature cycle</th>
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<td>Hot forging</td>
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<td>850-1050°C</td>
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<tr>
<td>Soft annealing</td>
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<td>680-720°C</td>
<td>Slowly (15°C/h) until 600°C</td>
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<tr>
<td>Stress relieve annealing</td>
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<td>Quench &amp; Tempering</td>
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<td>Stress relieve annealing</td>
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Hardenability

Other properties (typical values)

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<td>Average CTE 20-300°C (µm/m°K)</td>
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<td>Specific heat capacity 50/100°C (J/kg°K)</td>
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<tr>
<td>Electrical resistivity Ambient temperature (µΩm)</td>
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Contact us

Would you like to know more about our offers? Don’t hesitate to contact us:

Via e-mail: info@ovako.com

Via telephone: +46 8 622 1300

For more detailed information please visit http://www.ovako.com/en/Contact-Ovako/

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