Material - SAE 1018

Standard Specification For Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Steel

Group - Ferrous Mild Steel Alloys
Sub Group - SAE 1018 Carbon Steel Compositions For Forging To Hot-Rolled And Cold-Finished Steel
Application - Intended for Valve, Pump, General Engineering, Automotive and Other Industries
Grade Belongs to the Industry - Steel

<table>
<thead>
<tr>
<th>Chemical Composition</th>
<th>Heat Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon C %</td>
<td>As Raw or Annealing or Normalizing or Hardening and Tempering</td>
</tr>
<tr>
<td>Manganese Mn %</td>
<td></td>
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<tr>
<td>Phosphorus P %</td>
<td></td>
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<tr>
<td>Sulphur S %</td>
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<tr>
<td>Boron B %</td>
<td></td>
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<tr>
<td>Chromium Cr %</td>
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<tr>
<td>Copper Cu %</td>
<td></td>
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<tr>
<td>Molybdenum Mo %</td>
<td></td>
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<tr>
<td>Nickel Ni %</td>
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<tr>
<td>Lead Pb %</td>
<td>Balance</td>
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<tr>
<td>Iron Fe %</td>
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</tbody>
</table>

Mechanical Properties

| Tensile Strength in Mpa | 400 - 440 |
| Yield Strength in Mpa   | 220 min.  |
| Elongation in %         | 15 min.   |
| Reduction of Area in %  | 40 - 50   |
| Hardness in HB          | 241 max.  |
| Impact in Joule         | -         |

Cross Reference Table

<table>
<thead>
<tr>
<th>Material</th>
<th>Standard</th>
<th>Country</th>
<th>Grade Belong to the Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>G10180</td>
<td>UNS</td>
<td>USA</td>
<td>Bars, Wire Rods and Tubing</td>
</tr>
<tr>
<td>1018</td>
<td>AISI</td>
<td>USA</td>
<td>Steel</td>
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<tr>
<td>A 1040 1018</td>
<td>ASTM</td>
<td>USA</td>
<td>Steel and Bar</td>
</tr>
<tr>
<td>A 108 Grade 1018</td>
<td>ASTM</td>
<td>USA</td>
<td>Wire Rod and Round Wire</td>
</tr>
<tr>
<td>A 29 1018</td>
<td>ASTM</td>
<td>USA</td>
<td>Steel and Bar</td>
</tr>
<tr>
<td>A 311 1018 Class A</td>
<td>ASTM</td>
<td>USA</td>
<td>Steel and Bar</td>
</tr>
</tbody>
</table>

Further any inquiry to discuss with Gravity Cast Pvt. Ltd. – Gravity Group of Companies team member Call on +918469160029, or email marketing@gravitycastindia.com

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