# 301 Stainless Technical Datasheet

## Typical Applications
- Automotive wheel covers
- Aircraft structural parts
- Railcar structural components
- Wiper blade clips
- Diaphragms
- Trailer components

## Key features
- High strength austenitic stainless steel
- Good ductility properties when cold worked
- Excellent corrosion resistance
- Can be easily welded.

## Corrosion resistance
Resistance to atmospheric corrosion is excellent.

## Availability
Sheet and strip in coil

## Related material specifications
- ASTM A 666
- ASTM A 240

## Weldability
Good by common welding techniques.

## Chemical Composition (weight %)

<table>
<thead>
<tr>
<th></th>
<th>C</th>
<th>Mn</th>
<th>P</th>
<th>S</th>
<th>Si</th>
<th>Cr</th>
<th>Ni</th>
<th>N</th>
<th>Fe</th>
</tr>
</thead>
<tbody>
<tr>
<td>min</td>
<td>0.15</td>
<td>2.00</td>
<td>0.045</td>
<td>0.030</td>
<td>0.75</td>
<td>16.00</td>
<td>6.00</td>
<td>Bal</td>
<td></td>
</tr>
<tr>
<td>max</td>
<td>0.15</td>
<td>2.00</td>
<td>0.045</td>
<td>0.030</td>
<td>0.75</td>
<td>18.00</td>
<td>8.00</td>
<td>0.10</td>
<td>Bal</td>
</tr>
</tbody>
</table>

## Mechanical Properties (at room temperature)

<table>
<thead>
<tr>
<th></th>
<th>UTS ksi (MPa)</th>
<th>0.2% YS ksi (MPa)</th>
<th>Elongation % in 2&quot; (50.8mm)</th>
<th>Hardness Rockwell</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annealed (Typical)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/4 Hard</td>
<td>110 (758)</td>
<td>40 (276)</td>
<td>60</td>
<td>B85</td>
</tr>
<tr>
<td>1/2 Hard</td>
<td>125 (862)*</td>
<td>75 (517)*</td>
<td>25*</td>
<td>C25</td>
</tr>
<tr>
<td>3/4 Hard</td>
<td>150 (1034)*</td>
<td>110 (758)*</td>
<td>18*</td>
<td>C32</td>
</tr>
<tr>
<td>Full Hard</td>
<td>175 (1207)*</td>
<td>135 (931)*</td>
<td>12*</td>
<td>C37</td>
</tr>
<tr>
<td></td>
<td>185 (1276)*</td>
<td>140 (965)*</td>
<td>9*</td>
<td>C41</td>
</tr>
</tbody>
</table>

* Minimum - standard practice is to produce to minimum tensile strength, minimum yield strength or minimum hardness, but not to combinations of these properties.

## 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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