T72

Technical Datasheet

Aerospace Stainless Steel Tube

Typical Applications

- Superheater tubes
- Cooling tubes
- Furnace tubing
- Oil & gas sector applications
- Aerospace applications

Product Description

A type 347, niobium stabilised, stainless steel containing 18% chromium and 10% nickel with added copper. Designed for use in hydraulic applications. Achieves a tensile strength (Rm) of 550/700 N/mm². The alloy benefits from good corrosion resistance and good weldability.

Heat treatment

Supplied in the heat treated condition.

Key features:

- Designed for hydraulic applications
- Niobium stabilised
- Good corrosion resistance
- Good weldability

Corrosion Resistance

Good.

Weldability

Good.

Availability

Tube.

Chemical Composition (weight %)

<table>
<thead>
<tr>
<th></th>
<th>C</th>
<th>Cu</th>
<th>Si</th>
<th>Mn</th>
<th>Cr</th>
<th>Ni</th>
<th>Nb</th>
<th>P</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min</td>
<td></td>
<td>0.20</td>
<td></td>
<td>17.0</td>
<td>9.0</td>
<td></td>
<td>1.0</td>
<td></td>
<td>0.035</td>
</tr>
<tr>
<td>Max</td>
<td>0.08</td>
<td>0.50</td>
<td>0.10</td>
<td>2.00</td>
<td>19.0</td>
<td>12.0</td>
<td>1.0</td>
<td>0.035</td>
<td>0.025</td>
</tr>
</tbody>
</table>

Mechanical Properties

<table>
<thead>
<tr>
<th>Grade</th>
<th>Treatment</th>
<th>T72 Tube</th>
<th>Rm, N/mm²</th>
</tr>
</thead>
<tbody>
<tr>
<td>T72 Tube</td>
<td>Solution annealed</td>
<td>550 - 700</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>210 - 340</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Elongation in 5.65</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>40 1/8&quot; OD to 3 1/4 OD</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>%</td>
<td></td>
</tr>
</tbody>
</table>

Weldability

Good.

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.

www.smithmetal.com

sales@smithmetal.com

All information in our data sheet is based on approximate testing and is stated to the best of our knowledge and belief. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading. © Smiths Metal Centres 2018