Ferritic Stainless Steel 1.4003

STANDARDS : UNS S41003 : Euronorm 1.4003 : X2CrNi12

PRODUCT FORMS / ASTM REFERENCES

Sheet / Plate

ASTM A240 / A240M
ASTM A480,
EN10028-7 and
EN10088-2

DESCRIPTION

1.4003 Stainless Steel is one of the world’s most specified utility Ferritic Stainless Steels. The benefits are corrosion resistance, high strength and good weldability whilst offering a cost-benefit compared to Austenitic Stainless.

TYPICAL APPLICATIONS

• Road Transport
• Tanks & Containers
• Material Handling
• Electrical Enclosures

CHEMICAL COMPOSITION

<table>
<thead>
<tr>
<th></th>
<th>Phosphorus</th>
<th>Manganese</th>
<th>Nickel</th>
<th>Chromium</th>
<th>Carbon</th>
<th>Sulphur</th>
<th>Silicon</th>
<th>Nitrogen</th>
<th>Iron</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.4003</td>
<td>0.04</td>
<td>1.50</td>
<td>0.3 - 1.0</td>
<td>10.5 - 12.5</td>
<td>&lt;0.03</td>
<td>0.0 - 0.02</td>
<td>1.0 (max)</td>
<td>&lt;0.03</td>
<td>Bal</td>
</tr>
</tbody>
</table>

MECHANICAL PROPERTIES*

PROPERTY 1.4003
Proof stress 0.2 280 MPa
Elongation 18%
Brinell hardness HB 223 Max

*Min Values (unless max or range indicated)
Kloeckner Metals UK offer a comprehensive ranges of 1.4003 Stainless Steel sheet and plate. Our stock capabilities include Cold Rolled Sheet, Hot Rolled Sheet and Quarto Plate.

Combined with our extensive stock, we also offer a range of added value processes delivering cost effective supply chain solutions to enhance the efficiency and profitability of valued customers. These include Water Jet Cutting, laser cutting, High Definition Plasma, polishing, coating, guillotines and more...

### ELEVATED TEMPERATURE PROPERTIES

<table>
<thead>
<tr>
<th></th>
<th>100°C</th>
<th>200°C</th>
<th>300°C</th>
<th>400°C</th>
<th>500°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modules of Elasticity (GPa)</td>
<td>545</td>
<td>464</td>
<td>415</td>
<td>368</td>
<td>333</td>
</tr>
<tr>
<td>Thermal Conductivity (W / m.K)</td>
<td>350</td>
<td>308</td>
<td>280</td>
<td>262</td>
<td>236</td>
</tr>
<tr>
<td>Electrical Resistivity (Ω.mm² / m)</td>
<td>231</td>
<td>215</td>
<td>184</td>
<td>202</td>
<td>150</td>
</tr>
</tbody>
</table>

**DISCLAIMER**

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