S355 S355J2 S355J2+N Steel

**S355, S355J2, S355JR, S355J2+N steel stockholders and suppliers, delivering to the whole of the UK.** West Yorkshire Steel are suppliers of S355 grades in steel plate, round bar and flat bar. As an unalloyed low carbon steel grade S355 is supplied in the hot rolled and cold drawn conditions. The S355 steel specifications are high yield non alloy steels. First specified in the European EN10025 standard and later published by the British Standards Institute (BSI). These standards superseded the BS4360 grades. The average minimum yield for this material is 355 N/mm², hence the name S355 (with the ‘S’ giving reference to it being a structural steel).

S355 is commonly supplied to the following standards:-

- BS EN 10025
- BS EN 10277
- BS EN 10250

We welcome export enquiries for S355 carbon steel. Contact our sales office and consult our shipping policy for further details.

**Alternative carbon steel grades we supply**

- EN3
- EN8
- EN9
- EN32
- EN43
- 070M20
- 080M40
- 070M55
- 080A15
- S275
- Key Steel

---

**Form of Supply**

West Yorkshire Steel are S355 stockholders and suppliers of flame cut plate, round bar and flat bar. This steel grade can be supplied to your required sizes as one offs or multiple cut pieces. Flame cut plates can also be Lumsden ground to size on thickness.

Contact our experienced sales team who will assist you with your S355 carbon steel enquiry.

- Plate
- Flat
- Diameter

---

**Applications**

S355 is a low carbon steel grade often used for application which require better mechanical properties than that of S275 grade. Commonly supplied in the as rolled condition it is used widely in the construction, manufacturing and offshore industries.
Analysis

<table>
<thead>
<tr>
<th>Element</th>
<th>Max Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon</td>
<td>0.20%</td>
</tr>
<tr>
<td>Phosphorous</td>
<td>0.025%</td>
</tr>
<tr>
<td>Manganese</td>
<td>1.60%</td>
</tr>
<tr>
<td>Sulphur</td>
<td>0.025%</td>
</tr>
<tr>
<td>Silicon</td>
<td>0.55%</td>
</tr>
</tbody>
</table>

S355 Grades

**Popular S355 specifications**

- S355JR
- S355JO
- S355J2
- S355J2+N
- S355J2G3
- S355J2C

**Popular symbols used in S355**

- JR: Charpy impact tests at room temperature 20°C
- JO: Charpy impact tests at 0°C
- J2: Charpy impact tests at -20°C
- G3: Supply condition normalised or normalised rolled
- +AR: Supply condition as rolled
- +N: Supply condition normalised or normalised rolled
- C: Cold drawn (bright)

Steel Profiles

S355J2+N steel profiles are available as multiple or one off pieces. Flame cut steel plates can be supplied surface ground and edge machined to your required sizes. All flame cut steel pieces are dressed before final inspection and despatch. If you have any special requirements please inform our sales staff when you enquire for flame cut steel profiles.

Grinding

Surface grinding and edge grinding is available on all flame cut steel plates. This is carried out on Lumsden grinding rotary reciprocating table machines. After being flamecut pieces can be ground to clean up or cut plates can be Lumsden ground to size on thickness to an tolerance of +/-0.25mm. A tighter tolerance may be possible, please provide your required tolerances when enquiring with our sales team.

Typical Mechanical Properties*
As a hot rolled non-alloy high yield steel, the main characteristics of S355 are its mechanical properties, such as the tensile strength and yield strength.

<table>
<thead>
<tr>
<th>Tensile Strength N/mm² (MPa)</th>
<th>Yield Strength N/mm² (MPa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>470-630</td>
<td>355</td>
</tr>
</tbody>
</table>

(*as rolled - 16mm plate)

**Heat Treatment**

S355 is not ideally suited to hardening, though it can be subjected to limited heat treatment process such as case hardening. If hardening S355 heats, treatment temperatures, including rate of heating, cooling and soaking times will vary due to factors such as the shape and size of each component. Other considerations during the heat treatment process include the type of furnace, quenching medium and work piece transfer facilities. Please consult your heat treatment provider for full guidance on heat treatment of carbon steel grades.

**Certification**

S355 steel is commonly available with a 3.1b mill certificate, cast and analysis certificate or a certificate of conformity, please request when placing any orders.

**Quality Assured Supply**

S355 steel is supplied in accordance with our ISO 9001:2015 registration.