BS1501–225–490A/B Pressure Vessel Steel plate

1.Pressure Vessel Steel Home Page

BS 1501

161-360A/B | 161-430A/B | 223-490A/B | 224-460A/B | 224-490A/B | 225-490A/B

2.BS1501-225-490A/B – now superseded, consider P355N/NH as the current equivalent specification. BS-225-490A/B with added Niobium for greater strength in higher working temperatures. This is a British Standard specification steel which has now been superseded by the Euro Norm standard (EN 10028).

3.The steel is being quoted by our clients at the enquiry stage which is why we have included details on our website. Note though that this information should only be used for reference purposes. Details of equivalent standards can be found under "comparable grades".

4.There are two types relating to BS1501-225-490 which are ...

Type A :Denotes specified min. room temperature tensile properties

Type B :As per Type A but with elevated temperature properties

Please refer to technical details for BS-225-490A/B in the tables below. Current comparable grades are listed in the menu on the left hand side of this web page.

5.Table 1: Chemical Composition of BS1501-225-490A/B

|  |  |  |  |
| --- | --- | --- | --- |
| Element | BS1501-225-490A/B | Element | BS1501-225-490A/B |
| Carbon (C)\* | max. | 0.20% | Aluminium (Al)\* (metallic) | min. | 0.015% |
| Silicon (Si) | min. | 0.10% | Niobium (Ni) | min. | 0.010 |
| max. | 0.50% |   | max. | 0.060 |
| Manganese (Mn) | min. | 0.90% | Chromium (Cr) | max. | 0.25% |
| max. | 1.60% | Copper (Cu) | max. | 0.30% |
| Phosphorus (P) | max. | 0.030% | Molybdenum (Mo) | max. | 0.10% |
| Sulphur (S) | max. | 0.030% | Nickel (Ni) | max. | 0.75% |

\* Aluminium level meets this requirement as long as value is not less than 0.18% Table 2: Mechanical Properties of BS1501-225-490A/B

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | Nominal Plate Thickness: | Tensile Strength: | Yield Strength: | Elongation: |
| Over (mm) | Up to and inc. (mm) | min. N/mm² | max. N/mm² | min. N/mm² | min. (%) |
| BS1501-225-490A/B | 3 | 16 | 490 | 610 | 355 | 21 |
| 16 | 40 |   |   | 345 | 21 |
| 40 | 63 |   |   | 340 | 20 |
| 63 | 100 |   |   | \* | 19 |
| 100 | 150 |   |   | \* | 19 |

\* Yield strength values for plates over 63mm shall be same values specified for plate thicknesses between 40mm and 63mm reduced by 1% for each 5mm increase over 63mm

(Please note: the technical information above is for guidance only – for exact specifications please check with our Sales Team)

6.To find out more about our pressure vessel and boiler quality steels and to receive a competitive quotation for the supply of the material, please contact us.