BS1501–224–490A/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2.BS1501 has been superseded by EN 10028. When considering 490A and 490B look for equivalents including ASTM A516 Grade 70 and P355GH BS-224-490A/B is a British Standard specified steel used primarily in the fabrication of weldable steel pressure vessels and boilers.

3.This particular grade which has now been superseded by the Euro Norm standard EN 10028, has improved tensile strength when compared to BS-224-460. As the specification is no longer current, the information included here should be used for reference purposes only.

4.There are two types of BS1501-224-490 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-224-490A/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 BS1501-224-490A/B

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Element | | BS1501-224-490A/B | Element | | BS1501-224-490A/B |
| Carbon (C)\* | max. | 0.22% | Aluminium (Al)\* (metallic) | min. | 0.015% |
| Silicon (Si) | min. | 0.10% |
| max. | 0.40% | Chromium (Cr) | max. | 0.25% |
| Manganese (Mn) | min. | 0.90% | Copper (Cu) | max. | 0.30% |
| max. | 1.60% | Molybdenum (Mo) | max. | 0.10% |
| Phosphorus (P) | max. | 0.030% | Nickel (Ni) | max. | 0.75% |
| Sulphur (S) | max. | 0.030% |

\* Aluminium level meets this requirement as long as value is not less than 0.18%

Table 2: Mechanical Properties of BS1501-224-490A/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. (%) |
| BS1501-224-490A/B | 3 | 16 | 490 | 610 | 325 | 21 |
| 16 | 40 |  |  | 315 | 21 |
| 40 | 63 |  |  | 305 | 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.