ASTM A387 Grade 22 Class 2 Pressure Vessel Steel PLATE

1.Chrome Moly Plate

ASTM A387

ASTM A387 Grade 5 Class 2 | ASTM A387 Grade 9 Class 2 | ASTM A387 Grade 11 Class 2

ASTM A387 Grade 12 Class 2 | ASTM A387 Grade 22 Class 2 | ASTM A387 Grade 91 Class 2

2.A387 Grade 22 Class 2 chrome moly plates for pressure vessels and industrial boilers.A387 Grade 22 Class 2 is a grade of chromium-molybdenum alloy intended primarily for use fabricators in welded boilers and pressure vessels which are designed for use in raised temperature service.

3.With excellent heat resistance and anti corrosive/oxidation qualities, this steel grade is ideal for use in the chemical, oil and gas industry.

4.Equivalents

|  |  |  |  |
| --- | --- | --- | --- |
| BS | EN | ASTM/ASME | DIN |
| 622-515B | 10 CRMO910 | A387-22-2 | 10 CRMO910 |

5.Specifications

Chromium & Molybdenum content (according to the ASTM specification):

|  |  |  |
| --- | --- | --- |
| Designation | Nominal Chromium Content (%) | Nominal Molybdenum Content (%) |
| A387 Grade 22 | 2.25% | 1.00% |

6.Tensile Requirements for Class 2 Plates

|  |  |  |
| --- | --- | --- |
| Designation: | Requirement: | Grade 22 |
| A387 Grade 22 | Tensile strength, ksi [MPA] | 75 to 100 [515 to 690] |
|  | Yield strength, min, ksi [MPa]/(0.2% offset) | 45 [310] |
|  | Elongation in 8 in. [200mm], min % | ... |
|  | Elongation in 2 in. [50mm], min, % | 18 |
|  | Reduction of area, min % | 45 (measured on round specimen) 40 (measured on flat specimen) |

7.Chemical Requirements

|  |  |  |
| --- | --- | --- |
| Element |  | Chemical Composition (%) inc. Grade & UNS No. |
|  |  | Grade 22 (UNS: K21590) |
| Carbon: | Heat Analysis: | 0.05 - 0.15 |
|  | Product Analysis: | 0.04 - 0.15 |
| Manganese: | Heat Analysis: | 0.30 - 0.60 |
|  | Product Analysis: | 0.25 - 0.66 |
| Phosphorus: | Heat Analysis: | 0.035 |
|  | Product Analysis: | 0.035 |
| Sulphur (max): | Heat Analysis: | 0.035 |
|  | Product Analysis: | 0.035 |
| Silicon: | Heat Analysis: | 0.50 max |
|  | Product Analysis: | 0.50 max |
| Chromium: | Heat Analysis: | 2.00 - 2.50 |
|  | Product Analysis: | 1.88 - 2.62 |
| Molybdenum: | Heat Analysis: | 0.90 - 1.10 |
|  | Product Analysis: | 0.85 - 1.15 |

8.Tension Test Requirements:

We shall be tested using a test specimen will confirm to the tensile requirements as outlined in Table 2.

9.Other requirements:

The following requirements and testing procedures (which are not mandatory) are considered suitable for Chrome Molybdenum steel:

Vacuum treatment

Product Analysis

Additional Tension Test

Charpy V-Notch Impact Test

Drop Weight Test

High Temperature Tension Test

Ultrasonic Examination

Magnetic Particle Examination

10.To find out more about our's services and ASTM A387 Grade 22 Class 2 steel plates which we can supply directly to you from stock or from the mill, Please to contact us.