



VRN

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A516 GRADE 70: PRESSURE VESSEL STEEL

Description

ASTM A516 is the standard specification for pressure vessel steel plates, carbon steel, for moderate and lower temperature service. A516 Grade 70 is an excellent choice for service in lower than ambient temperature application with excellent notch toughness and good weldability. This steel grade is used in both pressure vessel and industrial boilers and has the ability to withstand high pressure at different temperatures.

Applications

Used throughout the oil, petrochemical and gas industry. The steel is also found in sour services and wet H₂S applications (where steel is HIC tested).

Chemical composition

C	Si	Mn	P	S
0.31	0.15-0.40	0.85-1.20	0.04	0.035

Mechanical properties

Nominal thickness (mm)	Minimum yield strength (MPa)	Tensile strength (MPa)	Minimum elongation (%)
6-50	260	480-620	17

Note:

- Chemical composition: Ladle/ product analysis in %max
- Mechanical properties: At ambient temperature
- Delivery condition: Normalised (+N)
- Minimum impact energy: 20J minimum $t \leq 25$ @ -46°C; $25 < t \leq 50$ @ -40°C; $50 < t \leq 63$ @ -35°C
- HIC test is a supplementary requirement
- Supplementary requirements shall not apply unless specified in the purchase order as per ASTM A20 / A20M.

Approximate equivalents

EN 10028-2 Grade P295GH/ P355GH, BS 1501-224-490 A/ B, GB 713 Q345R

Standard stock list

13000 x 3000 x 6 / 8 / 10 / 12 / 16 / 20 / 25 mm

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