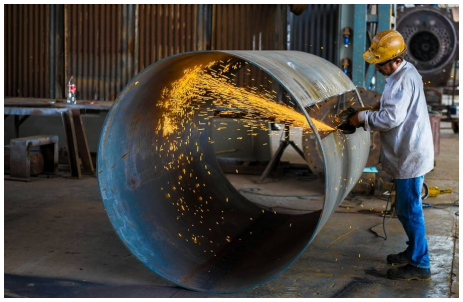
CARBON STEEL PLATES Advanced Materials. Engineered for Performance.

SA516 Grade 70 Plates



Carbon Steel Plates | ASTM / ASME: A516 / SA516 Grade 70 | EN: P355GH / 1.0473 (nearest) | Metric: SA516M Grade 485

The default carbon pressure vessel plate. Grade 70 carries the highest tensile of the SA516 family, and for sour service it is supplied with controlled sulphur, calcium treatment and HIC / SSC testing so wet H2S equipment can be built from a qualified plate rather than an upgrade alloy.

Stock status: Ex-stock Dubai - Typical lead time: 2 - 3 working days ex Dubai

Key features

- Supply options: as rolled, normalised, impact tested at -46 C and simulated PWHT
- Dual certified SA516 Gr 70 / SA516M Gr 485 and SA/A dual stamping
- NACE MR0103 / MR0175 compliant low-hardness supply for sour service
- HIC testing to NACE TM0284 and SSC testing to NACE TM0177 with CLR / CTR reports
- Ultrasonic examination to SA578 Level B / C and Z35 through-thickness grades

Available forms & sizes

Form	Size range
Plates	5 - 200 mm thk, up to 3000 mm wide, cut to size

Chemical composition (%)

Element	Min	Max
C	-	0.27 (t <= 25 mm)
Mn	0.85	1.20
Si	0.15	0.40
P	-	0.025
S	-	0.025 (0.002 max for HIC)

Mechanical properties

Property	Value	Unit
Yield Strength	260 min	MPa
Tensile Strength	485 - 620	MPa
Elongation	21 min (200 mm gauge)	%

Property	Value	Unit
Hardness	200 max HBW (NACE sour service)	HBW

Physical properties

Property	Value	Unit
Density	7.85	g/cm3
Max Service Temperature	425	C

Standards

ASTM A516 / ASME SA516, ASME Section VIII Div 1, ASTM A20 general requirements, NACE MR0175 / ISO 15156, NACE TM0284 (HIC), NACE TM0177 (SSC), ASTM A578 (ultrasonic examination), EN 10204 3.1 / 3.2

Equivalent grades

SA516 Gr 70, P355GH, 1.0473, SA516M Gr 485

Industries served

Oil & Gas, Petrochemical, Refining, Power Generation, Fertiliser, EPC Contractors

Typical applications

- Pressure vessels and reactors in wet H2S service
- Separators, scrubbers and knock-out drums
- Storage tanks and spheres
- Heat exchanger shells and tube sheets
- Boiler and steam drum plate

Live datasheet