

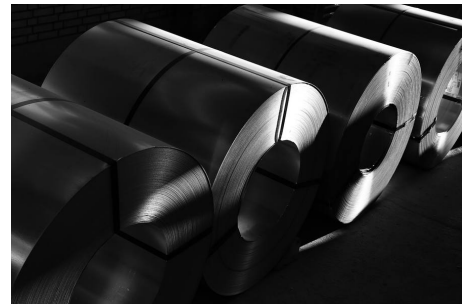
ALLOY STEEL

Advanced Materials. Engineered for Performance.

SA387 Grade 22 Class 2

Alloy Steel | ASTM / ASME: A387 / SA387 Grade 22 Class 2 | EN: 10CrMo9-10 / 1.7380

2.25Cr-1Mo pressure vessel plate - the refinery standard for hydroprocessing. The higher chromium and molybdenum push the Nelson curve limit well above Grade 11, which is why reactors, separators and hot wall equipment in hydrogen service specify it.


Stock status: Mill indent - **Typical lead time:** 4 - 8 weeks mill indent

Key features

- Chromium-molybdenum creep strength at elevated temperature
- Resistance to hydrogen attack (Nelson curve service)
- Supplied normalised and tempered with simulated PWHT on request
- Ultrasonic testing to SA578 and through-thickness Z grades available

Available forms & sizes

Form	Size range
Plates	6 - 150 mm thk, up to 3000 mm wide, N or Q+T
Flanges	1/2" - 24", 150# - 2500#, F11 / F12 / F22 / F5 / F9 / F91
Fittings	1/2" - 24" butt weld fittings, WP11 / WP22 / WP91

Chemical composition (%)

Element	Min	Max
C	0.05	0.15
Cr	2.00	2.50
Mo	0.90	1.10
Si	-	0.50
Mn	0.30	0.60

Mechanical properties

Property	Value	Unit
Yield Strength (0.2%)	310 min	MPa
Tensile Strength	515 - 690	MPa

Property	Value	Unit
Elongation	18 min	%
Condition	Normalised and tempered	-

Physical properties

Property	Value	Unit
Density	7.85	g/cm3
Max Service Temperature	550 - 650 depending on grade	C

Standards

ASTM A387 / ASME SA387 Class 2, ASME Section II Part A, EN 10028-2, EN 10204 3.1 / 3.2

Equivalent grades

10CrMo9-10, 1.7380, A387 Gr 22 Cl 2

Industries served

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

Typical applications

- Pressure vessel shells and heads for elevated temperature service
- Hydrogen service reactors and separators
- Boiler drums, headers and steam plant
- Petrochemical heaters and hot wall equipment



Live datasheet