

# SA387 Grade 9 Class 1 – Technical Datasheet

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## 1. Chemical & Mechanical Properties

### A. Chemical Composition

Element	% Composition
Carbon (C)	0.05 – 0.15
Manganese (Mn)	0.30 – 0.60
Silicon (Si)	≤ 0.50
Phosphorus (P)	≤ 0.025
Chromium (Cr)	≤ 0.025
Sulphur (S)	8.00 – 10.00

### B. Mechanical Properties

Property	Value
Yield Strength	≥ 275 MPa
Tensile Strength	485 – 620 MPa
Elongation	≥ 18 %

## 3. Common Applications

- Hydrogen reactors
- High-pressure piping
- Thick-wall petro-chem vessels

## 4. Standard Conformance

ASTM A387 / ASME SA-387 – Chromium-Molybdenum Alloy Steel Pressure-Vessel Plates.

## 5. Disclaimer

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